A HANDBOOK OF MOHAMMEDAN DECORATIVE ARTS

MOHAMMEDAN
DECORATIVE ARTS

THE METROPOLITAN MUSEUM OF ART

A HANDBOOK OF MOHAMMEDAN DECORATIVE ARTS

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Preface

In recent years our knowledge of the decorative arts of Islam has been greatly advanced through excavations and comparative study of the material in the numerous public and private collections in this country and abroad. Today, therefore, it is possible to trace the main outline of the development with a certainty that would have been impossible even twenty years ago. To present in the light of recent researches such a survey is the purpose of this handbook, the first general history of Mohammedan decorative art to appear in English. The writer is conscious of its many deficiencies, but trusts that it will be useful to the student and the collector as well as to the casual visitor seeking guidance to the large collection of Mohammedan art in this Museum.

The representative character of this collection is evident from the fact that all the illustrations in the handbook have been selected from our own material. The foundation of the collection was laid many years ago when the bequest of Edward C. Moore in 1891 brought to the Museum its first important group of Near Eastern material, including a magnificent group of enameled glass and a large collection of silver-inlaid metalwork. A notable group of Turkish ceramics was presented by W. B. Osgood Field in 1902. The Alexander Smith Cochran Collection of Persian illuminated books and single miniatures, given to the Museum in 1913, placed our collection in the first rank in this field. The Altman Bequest in 1914 brought to the Museum many magnificent rugs and other specimens of Near Eastern art, which were supplemented in

1917, through the bequest of Isaac D. Fletcher, by a splendid group of Rhages pottery and fine examples of Persian rugs. The gift of the Morgan Collection in 1917 enriched the Museum with a large group of enameled mosque lamps, rare carved ivories, and Indian rugs. Other important miniatures and ceramics came through the bequest of W. M. Grinnell in 1920. Particularly noteworthy was the gift of the James F. Ballard Collection of Oriental rugs in 1922. Welcome gifts or bequests have been received, among others, from Henry G. Marquand, V. Everit Macy, George D. Pratt, Rodman Wanamaker, Henry Walters, and Edward C. Moore, Jr., and these benefactions have been constantly supplemented by liberal purchases.

The collection of Mohammedan art is now exhibited in Galleries D 3, E 14, E 13, E 12, H 10, and H 20, with the exception of the Near Eastern specimens in the Altman Collection, which are shown in Gallery K 33. Owing to the constant growth of the collection, necessitating frequent rearrangements of the galleries, it has seemed undesirable to give this handbook the form of a descriptive, "case-to-case" guide to the collection. The different classes of material are treated in separate chapters, the location of the material under discussion being briefly indicated at the beginning of each chapter.

The writer gratefully acknowledges his indebtedness to Sarre, Herzfeld, Kühnel, Migeon, Martin, Strzygowski, Diez, and other scholars whose labors have contributed so greatly to our knowledge of Mohammedan art, and to Joseph Breck, Curator of the Department of Decorative Arts, for his many valuable suggestions and other assistance in the preparation of this handbook, and especially for the chapter on Glass and Crystal, of which he is the author.

M. S. DIMAND

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HANDBOOK OF MOHAMMEDAN DECORATIVE ARTS

Chapter I. Historical Introduction

THROUGHOUT THIS BOOK DATES ARE TO BE UNDERSTOOD AS AFTER CHRIST UNLESS OTHERWISE INDICATED

Mohammed,[1] the great founder of Islam, was born about 570 in Mecca, the heart of Arabia. He belonged to the Banu Hashim, the most distinguished branch of the Kuraish tribe. At the time of Mohammed, Arabia was peopled by various tribes, more or less settled, who worshiped the stars and a number of secondary deities of little importance. The influence of Judaism and Christianity, especially the former, prepared the ground for Mohammed's monotheistic teachings. The personality and genius of Mohammed helped greatly the rapid growth of the new religion which he founded upon the idea of Allah, the One God, of whom he considered himself the Prophet. In this task Mohammed was supported by two of his converts and disciples, Abu Bakr and Omar. In 622 Mohammed fled from his enemies in Mecca to Medina, where he was welcomed with open arms. This year of the Flight (*Hijra*, or Hegira) marks the beginning of the Mohammedan era. In 630 Mohammed captured Mecca, where he destroyed all the idols, except a black stone in the wall of the Kaaba (i.e., cube) which was especially sacred to the pagan Arabs. He made Mecca the center of the new faith and instituted an annual pilgrimage, following a custom long practised by the Arabs.

By proclaiming aggressive war on all unbelievers, Mohammed gained strong support from many tribes of Arabia, for

[1] Strictly, Muhammad, but popularly known as Mohammed.

these wandering nomads saw in the new creed, besides a moral issue, the opportunity of plunder in foreign countries. Organized by Mohammed and his followers, the Arabs became conscious of their racial superiority, and under the banner of Islam many hostile clans joined interests in a common cause.

At his death in 632 Mohammed left Arabia partly unified. He was succeeded by his father-in-law, Abu Bakr (632-634), who was elected caliph, or representative of the Prophet. To Abu Bakr fell the task of continuing the unification of Arab tribes and of preparing for the conquest of the world. His successors, Omar (634-644), Othman (644-656), and Ali (656-661), were elected in turn and were known as the Orthodox Caliphs.

The Arab armies of the caliphs invaded Irak, Mesopotamia, Syria, Persia, Egypt, and North Africa. The rapid conquests that followed were due not only to the strength and organization of the Arabs, but also to the political and economic conditions of the invaded countries. In Irak, Mesopotamia, and Syria the Arabs found a Semitic people who in previous centuries had migrated northward from Arabia. Some of them were Christians, some Jews, and others heathens. After the conquest of Irak, Ali, the last Orthodox Caliph, made his residence at Kufa, a city founded by Omar, and Arabia ceased to be the center of the empire. Kufa and Basra soon became the seats of Arabic learning and theology. The Aramaic peasants of Syria greeted the Arabs as deliverers from the foreign rule of the Byzantines, who were hated for the heavy taxes which they imposed on the natives of their Oriental provinces. Similar conditions prevailed in Egypt, which for centuries had been used to alien rule; for the Copts there as Monophysites who recognized in Christ only one, composite, nature, were opposed to the official Christianity of the Byzantine Empire, and saw in the new rule a prospect of freedom from the persecu-

tion of the Patriarch Cyrus. The conquest of Persia, where the Sasanid dynasty was in power, was more difficult. The Persians were of Aryan race and adherents of the Zoroastrian religion with its worship of the powers of nature. The battle of Nehavend in 642 ended the rule of the Sasanid dynasty. By 661 the Arab armies were at Herat and soon reached the Indus. After adopting Islam the Persians were chiefly responsible for the development of Shiahism, a Mohammedan religious doctrine opposed to Sunnism. The Shiites claimed that the divine right to the caliphate was restricted to the family of Ali and opposed the free election of the caliph as upheld by the Sunnites.

A great enemy of the assassinated Caliph Ali was Moawiya, a descendant of Omayya of the tribe of Kuraish. He assumed the caliphate and founded the dynasty of the Omayyad caliphs (661-750). Under the rule of the Omayyads the seat of the Mohammedan world was transferred to Damascus in Syria, where the dynasty found the strongest support, and Spain was conquered. At the court at Damascus, famous for its luxury and lax morals, the laws of the Koran were openly ignored. Nevertheless the empire, which now extended over a vast territory from the Atlantic to the borders of China, enjoyed great prosperity. Arabic poetry and science flourished at the court of Damascus, which became the center of the Mohammedan world.

In 750 the rule of the Omayyad dynasty came to an end. The revolt started in Khorasan, or northeastern Persia, and the Omayyads were defeated by their enemies, the Abbasids, who were the descendants of Abbas, the uncle of the Prophet.

One of the Omayyads, Abd ar-Rahman, fled to Spain, where he founded the Western Caliphate. In 1031 the rule of the Omayyads of Spain came to an end and was followed by various dynasties from Moorish North Africa. The conquest of

Granada in 1492 by Ferdinand and Isabella brought Mohammedan power in Spain to a close.

The alliance of the Persians with the Arab enemies of the Omayyads was chiefly responsible for the victory of the Abbasids, which in the end resulted in a victory of the Persian culture over the Arabic. Persian ideas and thoughts now invaded the Mohammedan world, hitherto dominated by the Arabs. The Abbasids built a new capital, Bagdad, situated on the Tigris, which became a center of Islamic culture and art. Here was founded a school of Mohammedan jurisprudence, and many works of Greek science and philosophy were translated into Arabic. The Caliph Mamun founded an academy known as the "House of Science" with a library and an observatory. Under the Caliph Harun ar-Rashid, famous from the stories of the *Thousand and One Nights,* Bagdad became one of the most flourishing cities in the world.

Under the Abbasids the Turks, a non-Semitic race of Central Asiatic origin, made their appearance. As they were born fighters, they were used as bodyguards at the court of the Abbasids. Soon they were in high command, and, under the Caliph Mutasim, the Turkish chiefs gradually became the rulers of the empire. A great event in the history of art in the time of Mutasim was the foundation of Samarra, a city situated sixty miles north of Bagdad and the residence of the caliphs from 836 to 883. After Mutasim's reign the caliphs were deposed or murdered at the will of the Turkish generals, and the steady decline of the caliphate became evident. The Mohammedan empire was divided into various states. In 800 the Aghlabid chiefs established a separate government in North Africa. In 868 Egypt became independent under the Tulunids, a Turkish dynasty followed by the Turkish Ikhshidids and the Berber Fatimids, who were adherents of the Shiah sect and whose rule was of great importance in the develop-

ment of Mohammedan art in Egypt. Independent dynasties were founded in 868 in Persia by the Saffarids, in 819 in eastern Persia by the Samanids, and in 962 in Afghanistan and the Panjab by the Ghaznawids.

While the caliphate was losing its political and even its spiritual importance, the Seljuks, a Turkish tribe, arrived in Transoxiana. They were the descendants and followers of Seljuk, a Turkish chieftain, who had migrated from the Kirghiz Steppes of Turkestan. After their victories over the Ghaznawid armies, they conquered Khorasan in 1037 and marched westward. They crushed every dynasty in Persia, Asia Minor, Mesopotamia, and Syria. In 1055 Tughril Beg entered Bagdad and was proclaimed sultan by the caliph. The invasion of the Seljuk Turks brought new life into the dying empire.

The end of the political power of the caliphate came in 1258 as a result of the arrival of another Central Asiatic race, the Mongols, who conquered one Mohammedan country after another under the leadership of Chingiz Khan. The vast empire of the Mongols, which stretched from China to southern Russia, was divided by Chingiz Khan among his sons. In Persia the house of Hulagu established a dynasty which reigned successfully from 1256 to 1353 under the title of Il-khans, ruling not only over Persia but also over Mesopotamia and part of Asia Minor. Soon the Mongols, who at first brought destruction and misery to the countries they subdued, adopted the higher culture of the conquered nations. The Il-khans became Mohammedans and as such were patrons of Mohammedan learning, literature, and art. To their courts at Bagdad, Tabriz, and Sultanieh came native and foreign scholars and artists.

The Il-khans were followed by several petty dynasties which fell under the advance of another great Mongol, Timur, or Tamerlane (1369-1404). Like his Mongol ancestor, Chingiz

Khan, Timur first invaded Persia. In 1402 his armies reached Asia Minor, defeated the Ottoman Turks, and captured the sultan, Bayazid I, a defeat which forced the Ottomans to advance to the north and west into Asia Minor, Syria, and southern Europe (see below) instead of to the south through Persia. Timur's conquests, however, were not so permanent as those of Chingiz Khan. The provinces in which Timur and his descendants, the Timurids (1369-1500), were firmly established were Transoxiana (principal centers, Samarkand and Bokhara) and Khorasan (Herat). Under the Timurids, Mohammedan science, literature, and art flourished at Herat, their capital. Babur, a descendant of Timur, born in Ferghana in 1482, was the founder of the celebrated Mughal dynasty which ruled India from 1526 to 1857, and the first Mughals, Babur, Humayun, and Akbar, brought to India the Persian culture so evident in the court art of the period.

Contemporary with the Il-khans and the Timurids were two other important dynasties, the Mamluk sultans of Egypt and Syria, who followed the Ayyubids, and the Ottoman Turks of Asia Minor. The Mamluk dynasty originated in the Turkish bodyguard of the Ayyubid sultans. There were two lines of Mamluk sultans, the Bahri (1250-1390) and the Burji (1382-1517). They built up a strong government which resisted the invasions of both the Mongols and the Crusaders. Many works of art bear the names of Mamluk sultans, especially that of Nasir ad-Din Muhammad ibn Kalaun who reigned three times in the period from 1293 to 1340. In the time of the Mamluk sultans, Cairo was rebuilt and adorned with many beautiful buildings.

Among the many Turkish tribes which populated Asia Minor in the middle and at the end of the thirteenth century were the Ottoman Turks. Othman, the founder of the dynasty, assumed the title of amir in 1299 and he and his followers suc-

cessfully fought the weakening Byzantine Empire. In 1453 under Muhammad II, Constantinople was conquered; in 1517 Selim I took Syria and Egypt from the Mamluks and even received the right of succession to the caliphate. The Ottoman dynasty attempted thus to gain not only political but also religious supremacy in the Mohammedan world.

In northwestern Persia there arose in the beginning of the sixteenth century a new and powerful dynasty, the Safavids (1502-1736). In 1502 Ismail (1502-1524), the descendant of the saint Shaikh Safi ad-Din of Ardebil, defeated the White Sheep Turkomans and made Tabriz his capital and residence. Ismail's great task was the unification of Persia. He conquered each Persian province in turn, and finally took Herat in 1510 from the Uzbeg dynasty of Shaibanids who ruled over Transoxiana from 1428 to 1599. The best-known kings of the Safavid dynasty were Shah Tahmasp (1524-1576) and Shah Abbas the Great (1587-1628), who contributed greatly to the development of a national Persian culture and art. In religion, the Persians were the official protectors of the Shiah sect of Islam as opposed to the Sunni sect represented by the Turkish Empire.

From this brief historical survey it is evident that many countries and races contributed to the development of Mohammedan culture, particularly in the field of art. In the time of Mohammed the nomadic tribes of Arabia had little or no art of their own, but as conquerors they adopted the highly superior art which they found in Syria, Mesopotamia, Persia, and Egypt. Eventually the art of the various Mohammedan countries developed many common features which permit us to speak of a general Mohammedan style.

In Syria, the Arabs found kindred people who had migrated at an early date from southern Arabia. Some of them were descendants of the Nabataeans, who had established an Arab

kingdom around Petra about the middle of the fourth century B. C., and later moved farther north to Hauran, or central Syria. Nabataean architecture and ornament of these regions has a style of its own, entirely different from that of Hellenistic or Roman art. Many characteristic Nabataean structures have been found in Christian churches of Syria which date from the fourth to the sixth century. The rich decoration of Syrian art contributed much to the development of the Mohammedan style, for when the Arabs arrived in Syria, they employed native workers in building mosques and palaces.

At the time of the conquest of Persia, Sasanian art was still flourishing, and its tradition, based on Hellenistic and ancient Oriental influences, continued for several centuries. Sasanian architecture greatly influenced the formation of the Mohammedan style of architecture, and Persian ceramics, metalwork, and textiles from the eighth to the tenth century reveal many ornamental motives and representations which are Sasanian in style and tradition. Even in later periods, from the thirteenth to the sixteenth century, Sasanian figure subjects and ornamental motives were still used.

In Egypt at the time of the Arab invasion, the art of the native Christians, or Copts, was highly developed, and the great skill of the Coptic artists was generally utilized by their new masters, notably in the production of textiles.

Besides the influence of the art of the highly civilized countries of western Asia just mentioned, there were also contacts with the arts of India and China. The appearance of the Seljuks and the Mongols was not without influence in the development of Mohammedan art, for many crafts, such as rug knotting and miniature painting, and ornamental motives were brought with them from their homes in Central Asia. Excavations in Chotscho in Chinese Turkestan, the capital of the kingdom of the Turkish Uighurs from the seventh to the ninth

century, have revealed many interesting parallels with Mohammedan monuments. The official religion of the Uighurs was Manichaeism, an Iranian religion founded by the Persian Mani. In Chotscho have been found Manichaean miniature paintings of about the ninth century which show a striking resemblance to fourteenth-century Persian miniatures of the Mongol period. In one of these Manichaean paintings the representation of a rug occurs. This is especially worthy of note, since there were also found in Chotscho actual fragments of knotted rugs, which, as the earliest known specimens of this craft, indicate that the art of rug knotting was introduced into the Near East by nomads from Central Asia. Moreover, certain ornamental forms found in Chotscho appear much later in Mesopotamia and Asia Minor.

In conclusion it may be said that Mohammedan art did not originate in any one country, but consists of various elements which together constitute a style of art properly called Mohammedan. Although there are provincial differences, there are at the same time broad general features that reveal a relationship.

Chapter II. Ornament

Mohammedan art is essentially one of decoration, for an empty surface is intolerable to the Mohammedan eye. The wall, the pages of a book, objects of daily use, all are richly decorated with ornament, floral, geometrical, and abstract, often combined with representations of figures and animals. The latter, however, are always subordinated to the prevailing decorative tendencies. In fact, the ornament forming the background for such motives is often given an equal importance with the figures themselves.

There is a widespread but erroneous belief that the representation of human figures and animals is prohibited by the Koran and that such motives were tolerated only by the more liberal Shiites, especially those of Persia. Literary sources and existing monuments, however, prove that the representation of living beings was practised both in Sunnite and Shiite countries. The rule prohibiting representations of human and animal figures in painting or sculpture is based not on the Koran but on the Traditions of the Prophet. The law was followed strictly by the theologians and the great masses of the Mohammedans, but the luxury-loving nobles, both Sunnites and Shiites, frequently disregarded this as well as other laws of Islam, and adorned their palaces and objects of daily use with figure subjects. Nevertheless, in the decoration of mosques, Korans, and objects for religious use, the prohibition was strictly observed, and the decoration was limited to geometrical and floral ornament.

The most common motive in Mohammedan art of all countries is the arabesque. Several misleading definitions of the arabesque are current in which the term is applied to almost every form of Islamic decoration. Properly, the arabesque is an ornament composed of gracefully curving scrolls, crossed or interlaced, and bearing stylized motives suggesting a leaf or a flower. These abstract motives are known as full-palmettes or half-palmettes, according to their form. In spite of variations due to locality and period, the arabesque always retains the same general characteristics. An important feature of the arabesque is that the palmette, especially the half-palmette, is not invariably an independent motive, as in Hellenistic art, but may continue as a scroll and develop into another palmette.

The development of the arabesque was a gradual one. In the ninth-century stucco and wood decorations of the monuments at Samarra and of the Mosque of Ibn Tulun at Cairo many elements of the true arabesque are already apparent. The stucco wall panel from Samarra, reproduced in figure 35, affords an excellent illustration of the whole- and half-palmette devices introduced in these early patterns. The full-palmette is sometimes heart-shaped, but more often three- or five-petaled, the latter forms being derived from the vine leaf or the lotus. Half-palmettes take the form of a palmette divided vertically, and are sometimes superimposed on wing-shaped or curved almond motives, already known in Scythian, Persian, and Indian art of the pre-Mohammedan era.

In the Fatimid period, the arabesque appears in a more developed form. The stem or connecting lines, as parts of the ornament, are now given greater prominence, and the curving lines are combined to form symmetrical patterns (fig. 39). The traditional ornament is enriched by the creation of new palmette devices, which in turn become essential parts of Mohammedan ornament.

In the thirteenth century, throughout the Mohammedan world, the arabesque achieved its most elaborate form. The Mamluk wood and ivory carvings (figs. 40 and 44) in this Museum offer admirable examples of the arabesque style as developed in Egypt in this period. It will be noticed that the palmettes in these carvings are decorated with linear scrolls or with series of incised lines, suggesting the veining of a leaf. Often two half-palmettes are so connected as to form a palmette medallion. In the wood-carving in figure 40 the wavy scrolls, forming the main ornament, develop into linear, bifurcated palmettes, a form which probably originated in the Far East.

In Asia Minor, Syria, and Mesopotamia during the twelfth and thirteenth centuries, the arabesque is of common occurrence on stone- and wood-carvings, ceramics, metalwork, and glass. As in Egypt, palmettes are frequently adorned with linear scrolls that occasionally form the main ornament.

Arabesque ornament was popular in all periods of Persian art, but it was frequently modified to accord with changes in taste. The palmettes are often composed of numerous stylized floral petals. Besides the fully developed arabesque, we find an abbreviated type that is very common in the decoration of the lustred ceramics of the thirteenth century. In these specimens the palmettes may be either circular or comma-shaped. At the end of the thirteenth century and in the fourteenth, when floral motives became naturalistic, the palmette was sometimes composed of leaves or petals with serrated outlines.

Besides the arabesque we find in Mohammedan art of all periods representations of plants and foliated and floral scrolls, either conventionalized or naturalistically rendered. In the seventh and eighth centuries the vine scroll was a common ornament. A magnificent example of the eighth century is the vine ornament on the façade of the Mshatta palace, now

in the Kaiser Friedrich Museum. Here the vine scrolls, as in East Christian art, are fairly naturalistically rendered. In the ninth century the vine leaves became more stylized, as in the so-called third style of Samarra.

Floral scrolls or plants played an important part in Persian ornamentation of the Mohammedan period, frequently forming the background for figure subjects, animals, and arabesques. In examples of the thirteenth century and, to some extent, of the fourteenth, the scrolls bear leaves and trefoiled or five-petaled conventionalized blossoms. Toward the end of the thirteenth century, naturalistic motives were added gradually as a result of Chinese influence introduced into Persian art by the Mongols. A tile, dated 1308, in our collection, is ornamented with both naturalistic and stylized floral motives. In fourteenth-century Sultanabad pottery (fig. 79) the conventional floral motives are replaced by naturalistic foliage, in the midst of which appear Chinese motives such as the lotus or peony. In adopting Chinese floral motives the Persians were not satisfied with mere copying; they created new varieties of lotus and peony palmettes that in time became an integral part of Persian decoration.

Persian rugs of the sixteenth and seventeenth centuries are patterned with delicate floral stems gracefully undulating into spirals and bearing naturalistic leaves, rosettes, and palmettes, which are often composite in form with serrated outlines suggesting real petals. Smaller palmettes are sometimes imposed upon larger motives; the colors and their variations in a single unit are purely decorative in intention. Frequently floral scrolls are interlaced with arabesques, as may be seen in several sixteenth-century rugs in our collection (fig. 145).

From Persia this type of floral ornament spread to all Mohammedan countries. Beautiful early examples are afforded by the fourteenth-century metalwork and enameled glass of

Syria (figs. 54 and 121). Floral ornament was particularly popular in the Turkish art of Asia Minor and Syria in the sixteenth and seventeenth centuries, when many characteristic floral motives, such as carnations, tulips, and hyacinths, were introduced.

From the beginning of Mohammedan art we find geometrical ornament in use, either alone or in combination with arabesques or floral scrolls. Circles, lozenges, crosses, triangles, wavy bands, and lines form the simplest motives of this kind of ornamentation. More complicated are the interlacings that occur so frequently in Moorish and Egypto-Arabic art. A geometrical ornament much used, especially in the decoration of silver-inlaid metalwork, is the fret, which offered many possibilities for interlacing designs.

Arabic writing (fig. 29), in both Kufic and Naskhi characters, plays an important rôle in Mohammedan ornamentation. The highly decorative characters are often elaborately intertwined with scrolls and sometimes terminate in palmettes.

Chapter III. Miniature Painting

Galleries D 3, E 14, and E 13

1. *The Earliest Paintings*

The beginnings of painting, especially of miniature painting, in the Mohammedan East are still little known, but the wall paintings of Kusair Amra in the Syrian desert and at Samarra in Irak give an idea of what the miniature painting of the eighth and ninth centuries may have been. The paintings of Kusair Amra, a little palace of the Omayyad caliphs of the eighth century, reveal in their figure subjects and floral motives an Eastern Hellenistic style combined with Persian and Indian motives. East Christian and Sasanian influence occur in the important, although fragmentary, wall paintings of the ninth-century Abbasid palace at Samarra. These paintings, published by Herzfeld, show a great variety of subjects, among which are dancing girls, musicians, and other figures often combined with animals and birds within circles or scrollwork.

Although no actual miniature paintings of Syrian or Mesopotamian schools earlier than the thirteenth century have survived, literary sources indicate that illustrated books were in existence in the ninth and tenth centuries and were greatly admired. In painting and calligraphy the Mohammedans of this period often employed Christian Syrians, who were famous as illustrators and illuminators. The Mesopotamian school may also have been influenced by the richly illuminated religious

manuscripts of the Manichaeans[1] who came to Mesopotamia in the eighth century and who were later favored by the Caliph Mamun (813-833). It is known from literary sources that in the year 923 during a Mohammedan persecution of the Manichaeans fourteen sacks full of Manichaean books were burnt in Bagdad and trickles of silver and gold ran out from the fire.

A Manichaean school of painting is also known to have flourished during the eighth and ninth centuries at the court of the Turkish Uighurs in Chinese Turkestan, examples of which have been unearthed by Grünwedel and Le Coq.

In the Fatimid period (909-1171), and even earlier, there was a school of wall and miniature painting in Cairo. Makrizi, the fifteenth-century historian, tells us about the richly decorated manuscripts in the library of the Fatimid caliphs and mentions two painters, Kasir of Basra and Ibn Aziz, who were ordered to paint a figure of a dancer in a realistic manner. Fragments of miniature paintings of the ninth, tenth, and eleventh centuries have been found in Egypt, the best specimens of which, published by Grohman, are in the Archduke Rainer Collection, National Library, Vienna.

2. *Painting in Mesopotamia in the XIII and XIV Centuries*

Many important thirteenth-century manuscripts or single leaves with paintings of the school of Bagdad are preserved in the museums and libraries of Europe and America. Fortunately, a number of them are dated, thus allowing a classification of other miniatures similar in style.

Most Arabic manuscripts of the thirteenth century are translations of Greek works on plants and animals, physics, and medicine. Leaves from a manuscript of the *Materia Me-*

[1] Mani (see pp. 11 and 32) was himself renowned as a painter.

dica of Dioscorides, dated A. H. 619 (1222/23), are scattered today all over the world and several of them are in public and private collections in America. This manuscript was written and illustrated by Abdallah ibn al-Fadl. One leaf in the Metropolitan Museum represents a doctor preparing cough medicine (fig. 1). It is painted on paper in yellow, red, blue, green, and gold. The folds of the costumes and draperies are so

Fig. 1. Miniature, Mesopotamian. From a MS. of the *Materia Medica* Dated 1222/23

stylized as to form a series of curved lines which make a decorative pattern. The faces, Semitic in type, are individualized in a manner which is absent in the miniature paintings of the following Mongol period.

One famous manuscript of the Mesopotamian school is the *Makamat,* or "Entertainments," of Hariri in the Bibliothèque Nationale in Paris, which is dated A. H. 634 (1237), and illustrated by Yahya ibn Mahmud from Wasit; another is the thirteenth-century *Makamat* in the Asiatic Museum in Leningrad. The miniature paintings of these manuscripts, marvelous in point of composition and character study, are master-

pieces of the Mesopotamian school, and give us an excellent insight into the private life of the Arabs of the thirteenth century. The sketchy style of this Abbasid school was developed from local East Christian and Iranian traditions and reached its height in these two manuscripts of the *Makamat* of Hariri.

A popular subject of illustration in the thirteenth century was the *Kalilah wa Dimnah,* a collection of fables by the Hindu Bidpai, translated into Arabic by Ibn Mukaffa. Two fine copies of this manuscript are in the Bibliothèque Nationale in Paris.

3. *The Mongol School of Painting in Mesopotamia and Persia (XIII and XIV Centuries)*

The Mongolian invasion of Persia and Mesopotamia was successfully completed in 1258 with the conquest of Bagdad, which became the winter residence of the Il-khans of Persia. The centers of Persian and Mesopotamian painting under the Mongols were Bagdad, Tabriz, and Sultanieh.

The Morgan Library in New York possesses an extraordinarily important manuscript of the *Manafi al-Hayawan,* or "Description of Animals," by Ibn Bakhtishu, in a Persian translation containing ninety-four miniature paintings. It was made by order of Ghazan Khan (1295-1304), the descendant of Hulagu (1256-1265), and was completed between 1295 and 1300. Whether the manuscript was illustrated in Bagdad or in Tabriz is uncertain, for Bagdad, although in ruins, had not lost its old reputation as the center of the Mohammedan world. The art of illuminating and illustrating books in the style of the traditional school continued to some extent under the Mongols, as one may see in some of the miniatures of the *Manafi al-Hayawan,* but the majority of miniatures depicting landscapes with birds and animals reveal another style which recalls the Chinese impressionistic ink drawings of the Sung

period. Some of the miniatures in the *Manafi al-Hayawan* were made either by Chinese artists or as direct copies of Chinese originals. This strong Chinese influence is explained by the political connection as well as by the great admiration for Chinese art which prevailed at the court of the Mongol

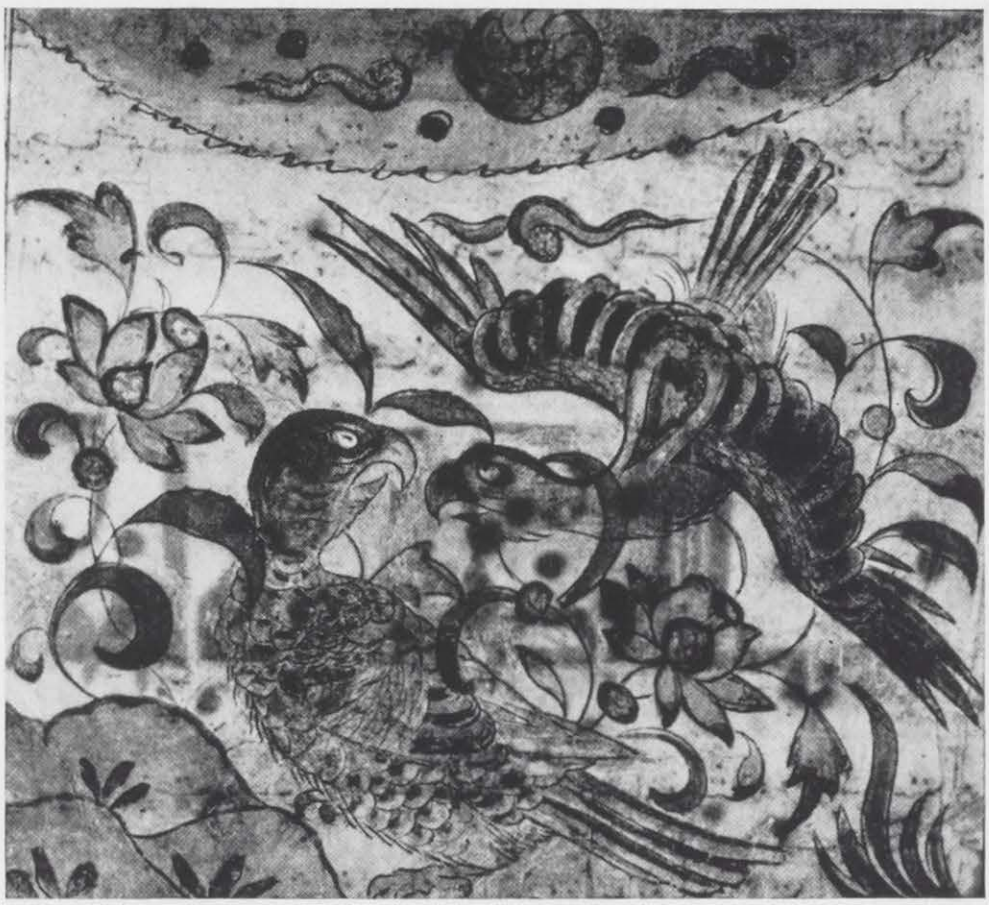


Fig. 2. From a MS. of the *Manafi al-Hayawan*
Persian, Late XIII Century

Il-khans. Under Hulagu, according to Rashid ad-Din, books as well as painters and architects were imported from China.

A leaf from another manuscript of the *Manafi al-Hayawan,* showing two eagles in a landscape, is the property of the Metropolitan Museum (fig. 2), and others similar in style are in private collections. The clouds, plants, and peony flowers, painted in subdued colors, are clearly of Chinese origin. Judging from the style, we may conclude that these miniatures

are contemporary with the *Manafi al-Hayawan* of the Morgan Library, and thus assign them to the end of the thirteenth century. The presence of shadows would seem to indicate that they are the work of a Persian artist versed in the art of the schools of Bagdad and China. From Chinese painters the Mohammedan artists learned to observe nature more intimately and to render floral motives in a realistic manner.

The Sino-Mongolian style is best represented in the illustrations of the *Jami at-Tawarikh* or "Universal History," of Rashid ad-Din, the vizir of the Mongol emperors, Ghazan and Uljaitu. One part of this manuscript, which is dated A. H. 714 (1314), is in the Royal Asiatic Society in London; the other, in the library of Edinburgh University. The miniatures illustrate episodes from the Bible and the life of Buddha, and from Mohammedan and Chinese history. A characteristic feature is the purely Chinese style of the landscape and of many of the figures. The colors, few in number and for the most part subdued in tone, are subordinated to the impressionistic style of Chinese art. Another manuscript of the "Universal History," contemporary with, or perhaps later than, the above manuscript, is in the Bibliothèque Nationale in Paris. The interesting miniatures, painted in rich colors, illustrate the customs and warfare of the fourteenth-century Mongols. A leaf from a third manuscript of the chronicle, now in this Museum (fig. 3), is the last page of the chapter relating the history of Ughuz, the ancestor of the Turks. The painting shows an unusual composition which consists of the figure of a Chinese emperor in a pavilion surrounded by growing plants. The colors employed are yellow, blue, green, red, purple, and gold; the motives and the technique of painting reveal strong Chinese influence. All these manuscripts of Rashid ad-Din's chronicle were probably written and illustrated in Tabriz.

Related in style to the chronicle of Rashid ad-Din are sev-

Fig. 3. Chapter Ending from a MS. of the *Jami at-Tawarikh* by Rashid ad-Din. Persian, Early XIV Century

eral illustrated leaves in various collections from a manuscript of Firdausi's *Shah-namah,* or "Book of Kings." A few leaves of this manuscript are in the Louvre; others are in private collections in Europe and America. These unusual paintings, large in size, are the first known illustrations of the national Persian poem, for which examples abound in the later periods of Persian painting. They show Chinese, Mongolian, and Persian elements side by side. The landscape, painted in subdued colors, is Chinese in style, while the figures and cos-

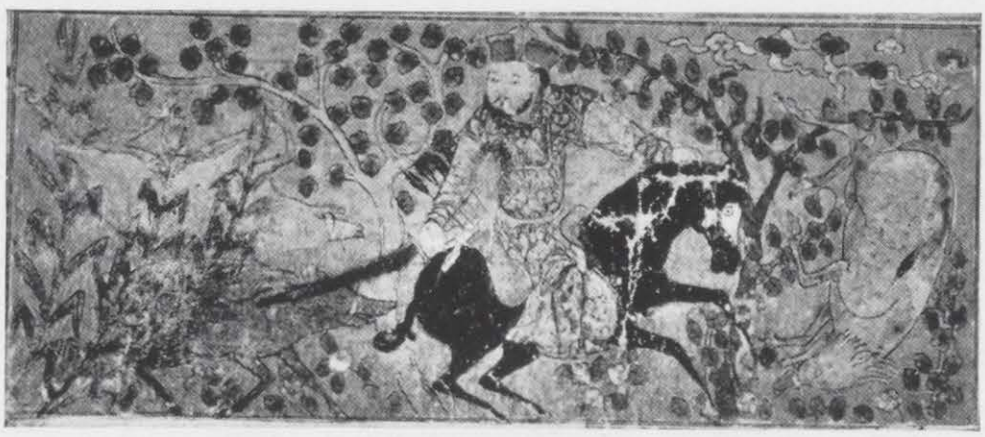


Fig. 4. From a MS. of the *Shah-namah*
Persian, Early XIV Century

tumes, rendered in rich, typically Persian colors, are Mongolian.

Several manuscripts, such as the *History of Tabari* and the small *Shah-namah,* formerly in the Schulz Collection, represent the Perso-Mongolian style of painting. The figures and costumes of these miniatures are Mongolian and are painted in many colors, usually against red backgrounds, although occasionally a gold background occurs, as for instance in a charming miniature in our collection (fig. 4). It is an illustration from a *Shah-namah,* and represents a landscape with a Mongolian khan hunting boars. The sketchy outlines are still reminiscent of the paintings of the school of Bagdad.

Fig. 5. Miniature, Persian. From a MS.
of the *Munis al-Ahrar* Dated 1341

In our collection is a leaf (fig. 5) from a codex, dated in the month of Ramazan, A. H. 741 (February, 1341), and entitled *Munis al-Ahrar*. This is an anthology of Persian poetry, compiled and written by Muhammad ibn Badr al-Jajarmi. Both sides of the leaf are decorated with bands of figures and animals of astronomical significance. The figures holding crescents personify the moon, and the various animals accompanying them represent the signs of the zodiac. The painting is executed in delicate tints of blue, green, purple, and yellow, with touches of gold, on a red background. The miniatures are very similar in style and color scheme to the illustrations of the small *Shah-namah* from the Schulz Collection. In the admirable drawing of the animals, such as the lion shown in figure 5, may still be seen indications of shadows, which gradually disappear from later Persian paintings.

Timur, the successor of the Mongol Il-khans, conquered Tabriz in 1386 and Bagdad in 1401. We know from literary sources that Timur took native artists with him from Bagdad to his new residence in Samarkand, but no existing manuscript can be attributed to the Samarkand school of this period. There is, however, one important manuscript of Timur's time, a work by Khwaju Kirmani (1281-1350) narrating the love adventures of the Iranian prince, Humay, and the daughter of the emperor of China, Humayun. The manuscript in the British Museum was written in A. H. 799 (1396) at Bagdad by a famous calligrapher, Mir Ali of Tabriz, the inventor of Nastalik writing. One of the miniatures is signed by the Persian painter, Junaid Nakkash as-Sultani, who was probably in the service of Sultan Ahmad (1382-1410) of the Mongol Jalairs of Bagdad. The paintings of this manuscript reveal some of the decorative qualities which later characterized the paintings of the fifteenth-century school of Herat. The landscapes with spongy mountains, tall trees, and a mul-

titude of minute plants are highly decorative in effect. No longer is there any attempt at chiaroscuro; the vigorous colors are unbroken by gradations; the outlines are firm, differing in this respect from those of the paintings of the thirteenth and early fourteenth centuries, which are rendered in a sketchy manner.

4. *Persian Painting in the Timurid Period (XV Century)*

The favorite son and successor of Timur was Shah Rukh (1404-1447), who chose Herat in Khorasan as his residence. Shah Rukh's son, Baisunkur Mirza (1397-1433), founded at Herat a library and academy of the book arts, where he employed forty painters, illuminators, calligraphers, and binders, mostly from western Persia and some of them pupils of Mir Ali of Tabriz. This new academy at Herat greatly contributed to the development of the national Persian style of painting. The Chinese influence continued under the Timurids, who carried on the traditions of their Mongol predecessors. Shiraz and Samarkand, the residences of the governors of Fars and Transoxiana, were also artistic centers of the Timurid period.

To the school of Samarkand in the fifteenth century is attributed a manuscript of a treatise on astronomy (now in the Bibliothèque Nationale), written for the library of Prince Ulugh Beg, son of Shah Rukh and governor of Transoxiana from 1409 to 1446. Ulugh Beg established at Samarkand a famous observatory where he employed many noted astronomers and encouraged the study of celestial bodies. This Museum possesses an astronomical manuscript illustrated with fifty drawings of the constellations (fig. 6), and inasmuch as the style of the drawing and details of costume indicate the early Timurid period, it seems probable that this manuscript was also written in Samarkand in the time of Ulugh Beg.

In our collection are twelve important miniatures from a *Shah-namah* of this period which exemplify the Mongolian style of Timurid painting. A popular incident in the *Shah-namah* is Rustam capturing the horse Rakhsh (fig. 7). The scene is a grandiose naturalistic landscape, with Chinese trees and flying geese, which plays as important a rôle as the subject itself. The decorative composition is greatly enhanced by

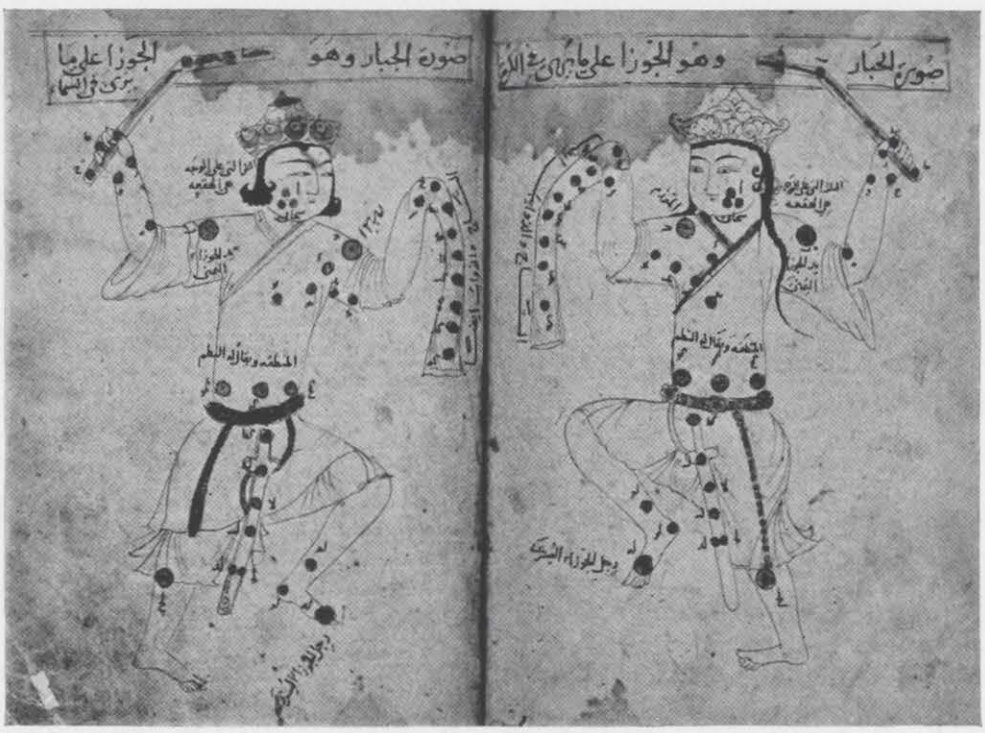


Fig. 6. From a Work on Astronomy
Persian, Samarkand, XV Century

the richly colored costumes of Rustam and his follower. Chinese influence is strongly evident in another miniature illustrating Kai Kaus' attempt to fly to heaven by fastening young eagles to his throne. Particularly interesting are the large Chinese clouds, which are more stylized than in the earlier period. All twelve paintings of this *Shah-namah* are exceptionally attractive not only for their narrative interest but also for their beautiful decorative quality. Miniatures similar in style may be seen in a Turkish manuscript of the *Apocalypse of Mo-*

hammed in the Bibliothèque Nationale in Paris, written in Herat in the year 1436. The *Shah-namah* miniatures in this Museum may be assigned to the same school and to the first half of the fifteenth century.

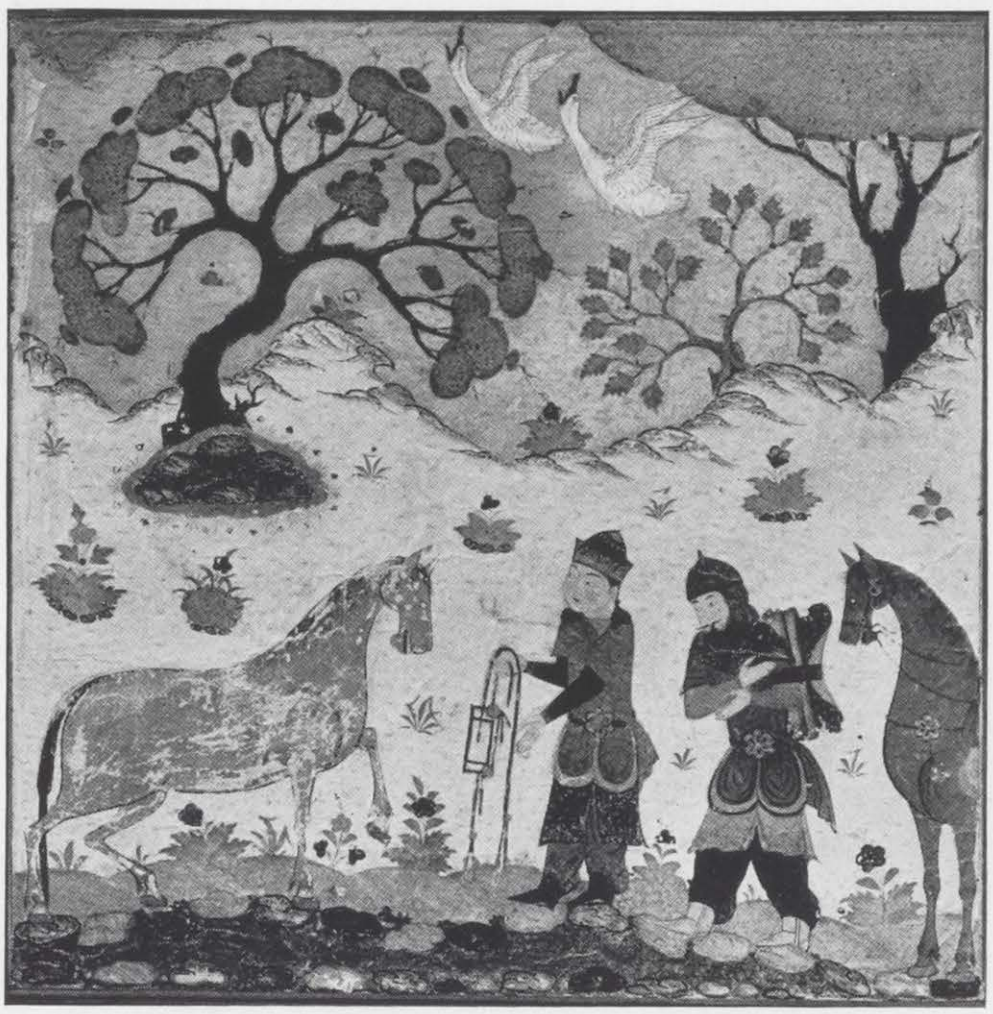


Fig. 7. From a MS. of the *Shah-namah*
Persian, XV Century

In the poems of the *Khamsah* by Nizami and the *Diwan* by Jami, the Timurid painters found new and delightful subjects for romantic illustration. The Timurid style is well exemplified in the miniature (fig. 8) from a manuscript dated A. H. 851 (1447/48). It represents the well-known episode of Khusru gazing at the beautiful Shirin while she bathes. The subtle technique, the delicate, almost effeminate features of Khusru,

and the more intimate treatment of the figures in general are typical of the Herat school of the middle of the fifteenth century. The small scale of the figures and the minute detail of the painting are also characteristics of the Timurid period.

Another example of the Timurid school in our collection is

Fig. 8. Miniature, Persian. From a MS. of the *Khamsah* by Nizami Dated 1447/48

a *Khamsah* by Nizami, written in A. H. 853 (1449/50). It is illustrated with thirty miniatures, one of which, typical of the rest, is shown in figure 9. The subject is Shirin and her horse carried on the shoulders of her lover, the sculptor Farhad. It is painted in the brilliant colors that occur in many of the miniatures of the Timurid school. This manuscript gives neither the name of the calligrapher nor the place where it was produced, but it is reasonable to suppose that it may have been made in Herat.

To the second half of the fifteenth century may be attributed a *Khamsah* by Nizami in our collection, written in Naskhi and containing eighteen miniatures in the characteristic Timurid style. Another manuscript is a *Diwan,* or collection of

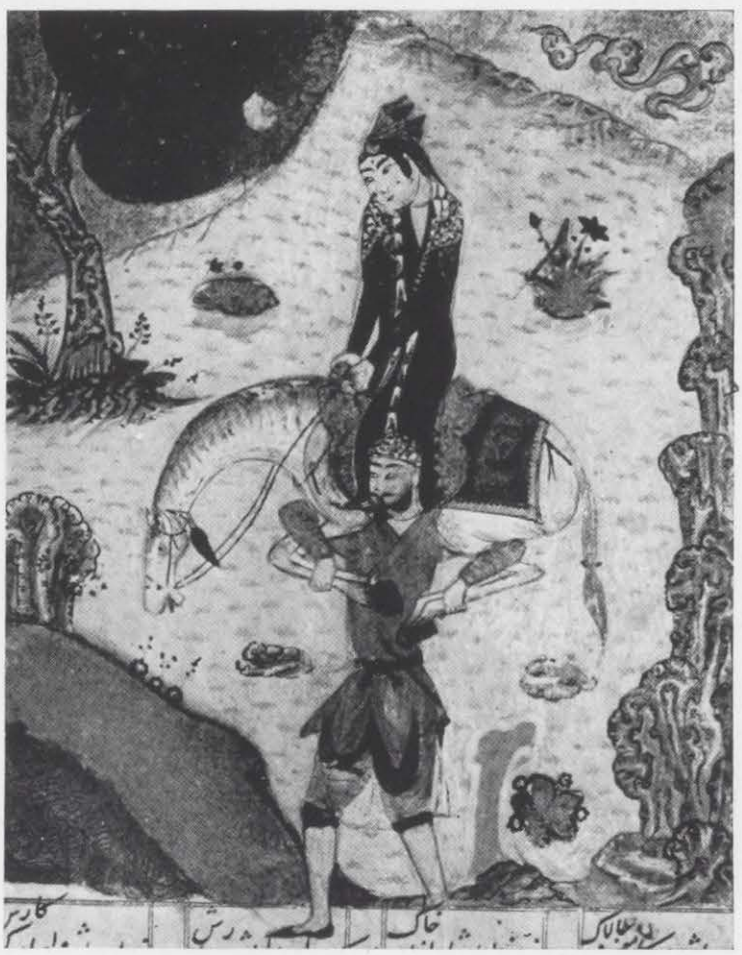


Fig. 9. Miniature, Persian. From a MS. of the *Khamsah* by Nizami Dated 1449/50

lyric and mystic poems, by Jami (1414-1492), written, according to Jackson, between 1463 and 1479 in the poet's own lifetime, by the well-known calligrapher, Abd al-Karim of Khwarazm. Abd al-Karim was one of the two sons of the famous calligrapher Abd ar-Rahman of Khwarazm, who transformed the style of Nastalik writing. In this work, which was accomplished between the years 1456 and 1476, the two sons of Abd ar-Rahman coöperated with their father. Our manu-

script is closely related to another early *Diwan* of Jami in the British Museum that was written in the year 1463 by the other son, Abd ar-Rahim. The sixteen miniatures illustrating our manuscript are painted in brilliant enamel-like colors. The miniature reproduced in figure 10 is a good example of the romantic scenes which became so popular in the second half of the fifteenth century. It shows a landscape with two lovers clad in silken garments of yellow, red, and blue against a background of trees and shrubs that form a colorful setting for an idyllic love scene, thenceforth a popular theme in Persian miniature painting.

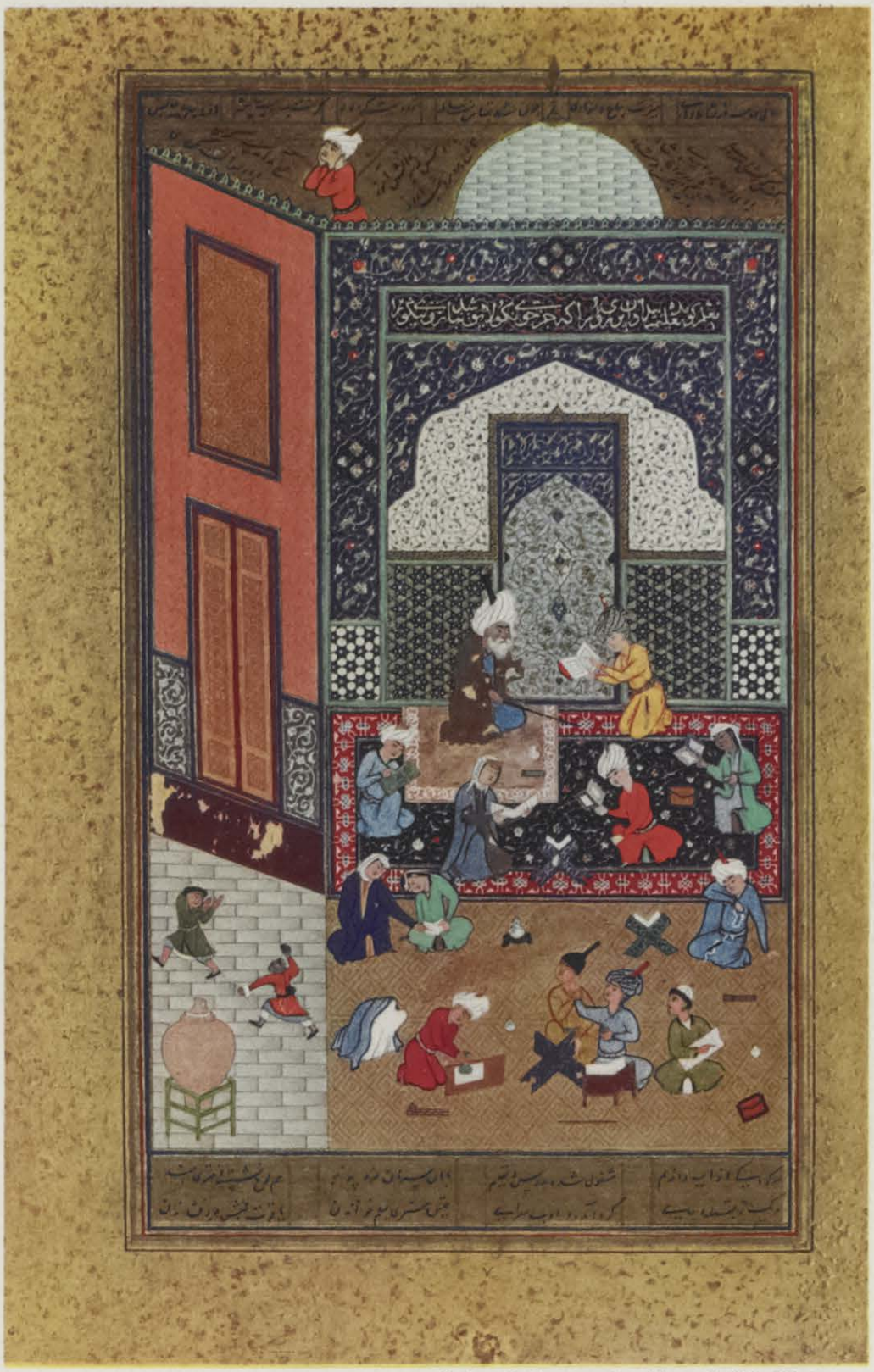
5. *Bihzad and His School*

The most famous Persian painter, called the "Marvel of the Age," was Kamal ad-Din Bihzad of Herat, who was born about 1440. Of this master, the Persian historian, Khwandamir (1475-1535 or 1537), wrote: "He sets before us marvellous forms and rarities of art; his draughtmanship, which is like the brush of Mani, has caused the memorials of all the painters of the world to be obliterated, and his fingers endowed with miraculous qualities have wiped out the pictures of all the artists among the sons of Adam. A hair of his brush, through its mastery, has given life to the lifeless form."[2]

According to the Turkish historian Ali, Bihzad was a pupil of Pir Said Ahmad of Tabriz. At first Bihzad worked at the court of the Timurid Sultan Husain Baikara (Mirza) (1473-1506). After the latter's death, when Shah Ismail of the Safavid dynasty conquered Herat in 1510, Bihzad moved to Tabriz, thus establishing in western Persia a school which influenced the whole future development of Persian painting. Ali also tells us that in 1514, on the occasion of a battle against the Turks, Shah Ismail was so anxious for the safety of his

[2] Sir Thomas Arnold, *Painting in Islam*, p. 140.

PLATE I



Color Collotype by Max Jaffé, Vienna.

Miniature, Persian. From a MS. of the *Khamsah*
by Nizami Dated 1524/25

favorite painter Bihzad, who was then in Tabriz, that he hid him and the calligrapher Shah Mahmud Nishapuri in a cave. After the battle his first thought was for his artists, and he

Fig. 10. From a MS. of the *Diwan* by Jami
Persian, XV Century

thanked God that they were saved from the enemy. In 1522 Shah Ismail appointed Bihzad director of the Royal Library. As Bihzad died about 1533, he must have been still alive in the beginning of Shah Tahmasp's reign.

The number of authentic works bearing Bihzad's signature, or showing the characteristics of his style, is very limited, although many miniatures with false signatures are known (see p. 54). His earliest signed paintings are in a volume in the British Museum dated A. H. 846 (1442), but are probably of the second half of the fifteenth century. On the ground of an annotation by the Emperor Jahangir, Schulz attributes to Bihzad miniatures of a *Zafar-namah*, or "History of Timur," in the Robert Garret Collection in Baltimore (formerly in the Golubev Collection), written by the calligrapher Shir Ali in A. H. 872 (1467) probably for one of the Timurid sultans. In these paintings Bihzad reveals himself as an ingenious observer of nature, and especially of the individuality of human figures. This last and greatest painter of the Timurid period freed himself from all the conventions of the Mongolian style. The faces of his figures are not conventional types but show a differentiation surpassing that achieved by any previous artist. Noteworthy is the realistic rendering of the faces of old men. The variety of facial expressions, emphasized by the many different colors used for the flesh tints, adds great interest to his paintings. Bihzad's combinations of colors are unusually harmonious and are peculiar to him. To Bihzad may also be attributed a *Bustan*, dated A. H. 893 (1487), in the Khedivial Library in Cairo.

An artist whose work has not hitherto been sufficiently recognized is Kasim Ali, a contemporary of Bihzad. The Armenian scholar Sakisian has discovered that seven miniatures of a *Khamsah* of Nizami (dated A. H. 899 [1494]) in the British Museum, for a long time attributed to Bihzad, bear the signature of Kasim Ali. Thereupon, Sakisian, perhaps too hastily, credits Kasim Ali with all of the qualities of style hitherto regarded as characteristic of Bihzad. It is evident, however, that the style of the two painters was very similar.

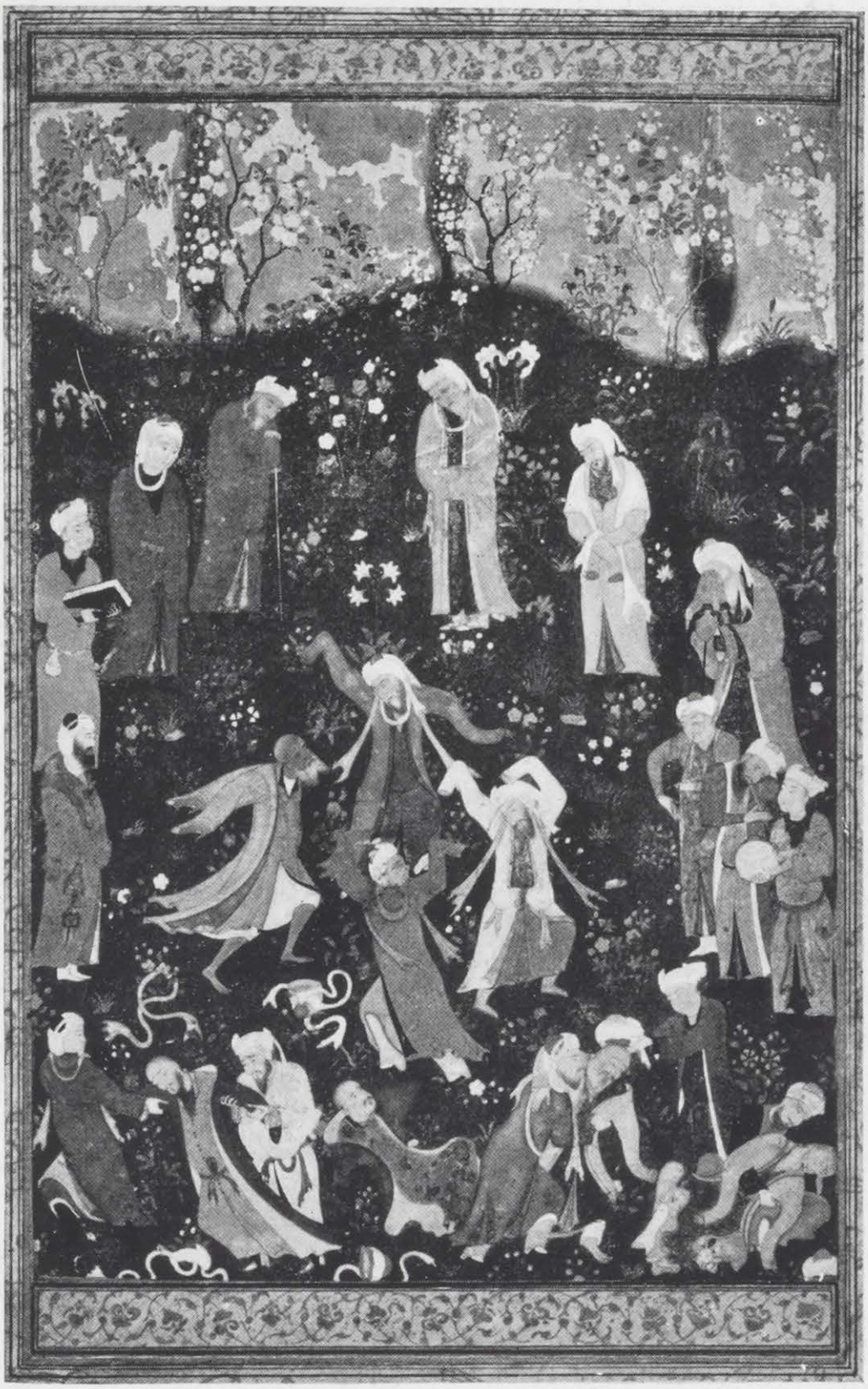


Fig. 11. Miniature, Dancing Dervishes. Persian
Style of Bihzad, about 1500

There is on exhibition in this Museum a fine painting (fig. 11) representing a realistic landscape with dancing dervishes, musicians, and spectators that may be attributed to Bihzad or his school. It is a masterpiece worthy of Bihzad's brush. Characteristic features are the delicacy of execution, the lively action, the individualization of the facial types, the varied flesh tints, and the unusual combination of such colors as pink, vermilion, dark red, brick red, and various shades of yellow, green, and blue.

Bihzad had two pupils, Shaikh-Zadah in Herat and Aka Mirak in Tabriz, both famous painters of the sixteenth century. To the former painter, sometimes called Shaikh-Zadah Mahmud, are attributed a number of signed miniatures, the authenticity of which is not yet quite established.

6. *Persian Painting of the XVI Century*

In the beginning of the sixteenth century under the new dynasty of the Safavids, the centers of Persian painting shifted from Khorasan to Tabriz in western Persia, and to Bokhara in Transoxiana, which was under the rule of the Shaibanid dynasty. But in the beginning of the Safavid domination the artistic life of Herat did not entirely die out. There are many evidences that as late as 1526 there was still a school of painting in Herat.

The Metropolitan Museum possesses a splendid manuscript of a *Khamsah* of Nizami written in A. H. 931 (1524/25) by Sultan Muhammad Nur, poet and calligrapher, the son and pupil of Sultan Ali al-Mashhadi. The manuscript contains fifteen superb miniatures, which may be counted among the finest examples of early Safavid painting. The great decorative quality and perfection of the design as well as the rich color schemes and minute ornamental details seen in the architecture, wall decoration, rugs, and costumes represent the cli-

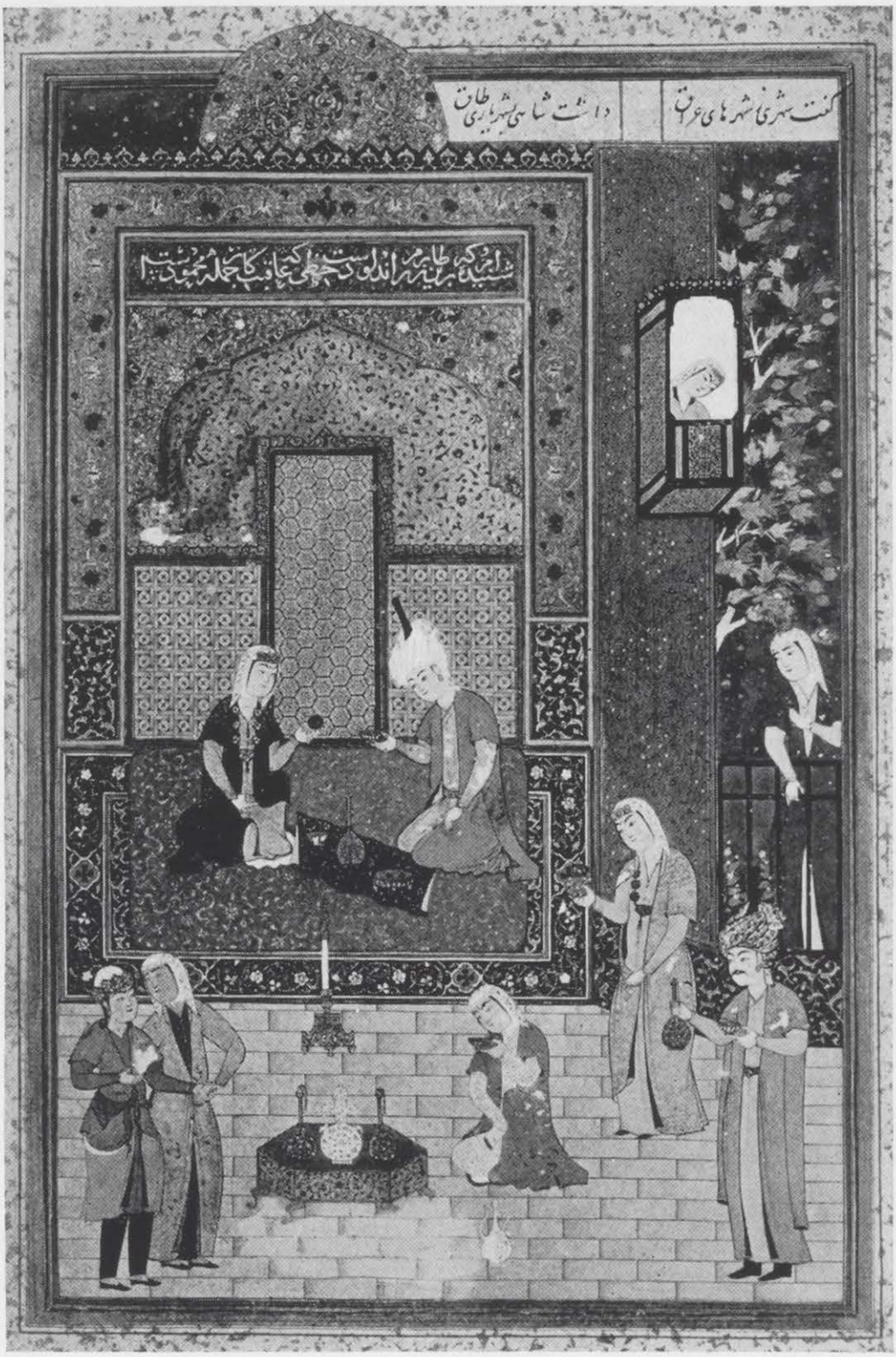


Fig. 12. Miniature, Persian. From a MS. of the *Khamsah* by Nizami Dated 1524/25

max of Persian painting. Of great artistic beauty and romantic charm is the miniature depicting Laila and Majnun in love at school (pl. I). Over the portal is written the following verse: "O teacher, give no instruction of an unjust kind to that fairy-faced girl, nor anything but good; for nothing else is worthy of that beauteous face."[3]

Also of great beauty are the seven paintings in this same manuscript illustrating the story of the Sasanid king, Bahram Gur, and the seven princesses whom he married and visited in their palaces on successive days of the week. Each palace is decorated with one color predominating — black, yellow, green, red, turquoise, sandal, or white — which establishes the color scheme for the miniature. Figure 12 represents Bahram Gur in the yellow palace on Sunday. This miniature is of great interest, as the inscription contains the name of the calligrapher Mahmud. This inscription reads: "The command regarding this gold-encrusted dome has been obeyed, and the inscription, which is added, is altogether the work of Mahmud."[4] Sakisian identifies this Mahmud with Mahmud Muzahib ("the Illuminator") whose signature appears on a number of miniatures. According to the historian Ali, Mahmud was a pupil of the calligrapher Mir Ali, with whom he moved from Herat to Bokhara, but he was more expert as illuminator than as calligrapher. It is not improbable that all except one (see p. 40) of the miniature paintings in the Nizami of 1525, in this Museum, were made in Herat by Mahmud and his pupils. Martin attributes them to Aka Mirak of Ispahan, a pupil of Bihzad and a favorite painter at the court of Shah Tahmasp. A Nizami in the British Museum, written between 1539 and 1543 in Tabriz for Shah Tahmasp, contains several paintings signed by Aka Mirak, but these are quite different in style

[3] Jackson and Yohannan, *Catalogue of . . . Persian Manuscripts . . . Presented . . . by Alexander Smith Cochran*, p. 66. [4] *Ibid.*, p. 66.

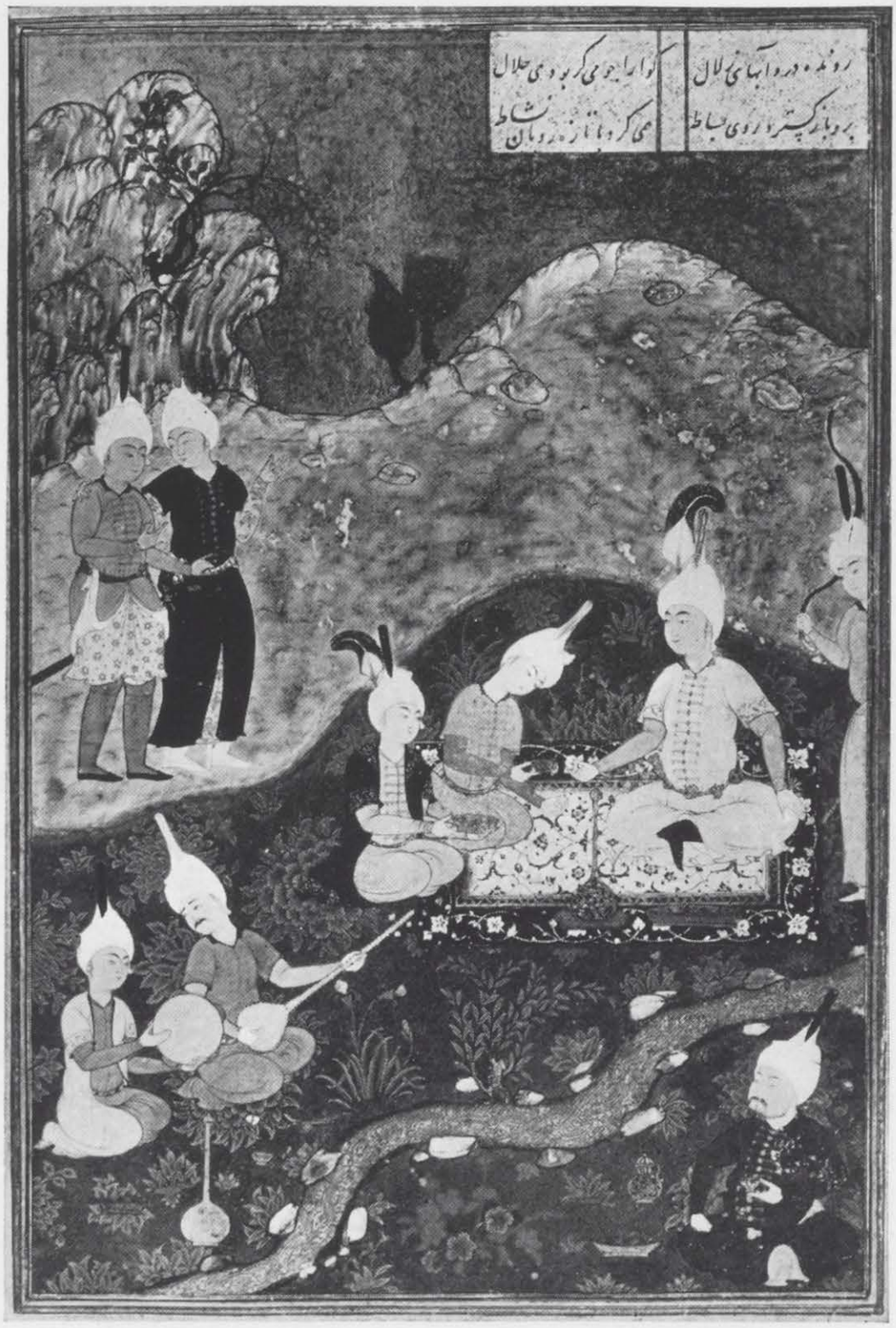


Fig. 13. Miniature, Persian, Style of Sultan Muhammad
From a MS. of the *Khamsah* by Nizami Dated 1524/25

from the paintings in the Nizami of 1525 in this Museum, which resemble closely the paintings in the manuscript of the works of Mir Ali Shir Nawai in the Bibliothèque Nationale, written in Herat in the year 1526-1527 by the calligrapher Ali Hijrani. To the school of Herat at the beginning of the sixteenth century also belong three fine miniatures in this Museum. They are from a *Khamsah* by Mir Khosru Dehlavi, written in Balkh in 1503-1504, and like the miniatures of the Nizami of 1525 they represent the transition between the styles of the Timurid and Safavid schools.

The Nizami of 1525 in our collection contains one painting in characteristic Safavid style that was probably added a few years later by a master of the Tabriz school (fig. 13). It represents Alexander received by the khagan. The elongated faces, the fashion in which the cloth of the turban is twisted more tightly around the cap, and the type of the costumes are indications of the style prevailing in the time of Shah Tahmasp, which is familiar to us from the paintings of Sultan Muhammad, a pupil of Mirak. He was Shah Tahmasp's court painter, and the director of the school of painting at Tabriz. Shah Tahmasp himself took painting lessons from this great master. To Sultan Muhammad are attributed the miniatures in the famous *Shah-namah* in the collection of Baron Rothschild in Paris, and a Nizami in the British Museum. The former manuscript contains two hundred and fifty-six large miniatures, and was produced at the order of Shah Tahmasp in 1527. The Nizami was made between 1539 and 1543 and contains two miniatures signed by Sultan Muhammad, and others by Mirak, Mir Sayyid Ali, and Maulana Muzaffar Ali. The style of Sultan Muhammad is characterized by great elegance of design and composition, as is exemplified by a miniature in our collection depicting a sultan, possibly Shah Tahmasp, and his courtiers in a garden.

Fig. 14. Tinted Drawing, Hunting Party
Persian, Style of Ustad Muhammadi, XVI Century

In addition to illustrations for manuscripts, Sultan Muhammad is accredited with separate miniatures, mostly portraits of elegant, sophisticated youths, some of which may represent Shah Tahmasp. According to Sakisian several such portraits, one of which is in Boston, are signed by another painter, Shah Muhammad of Ispahan.

A great, but little-known, painter of the second half of the sixteenth century was Ustad Muhammadi, possibly a son and pupil of Sultan Muhammad. There are several tinted drawings and paintings bearing signatures of this master, some of which appear authentic. A landscape in the Louvre is signed by Ustad Muhammadi and dated A. H. 986 (1578). Other signed works of importance are in the Bibliothèque Nationale and in the Boston Museum. In the latter museum there is also a self-portrait of Muhammadi. The style of Ustad Muhammadi is characterized by the realistic drawing of figures, especially those in action. The Metropolitan Museum possesses two tinted drawings and one painting in the style of this artist. One of the drawings (fig. 14) depicts a hunting party in a rocky landscape with a tree. Several drawings in the George D. Pratt Collection may also be attributed to Ustad Muhammadi.

The decoration of borders in gold and silver on variously colored backgrounds seems to have originated at Herat in the fifteenth century and to have been extensively practised during the sixteenth. We possess a number of leaves from a *Gulistan* of Sadi, written by Sultan Ali of Meshhad, with magnificent borders of this kind. One is illustrated in figure 15. These borders are separate from the text and were probably painted in Tabriz in the first half or the middle of the sixteenth century.

In general, the paintings of the second half of the sixteenth century in the schools of Tabriz, Shiraz, and other cities of

western and southern Persia continue the tradition of the court painters of Shah Tahmasp, but reveal a decline in quality and a lack of originality. The compositions are overcrowded, and

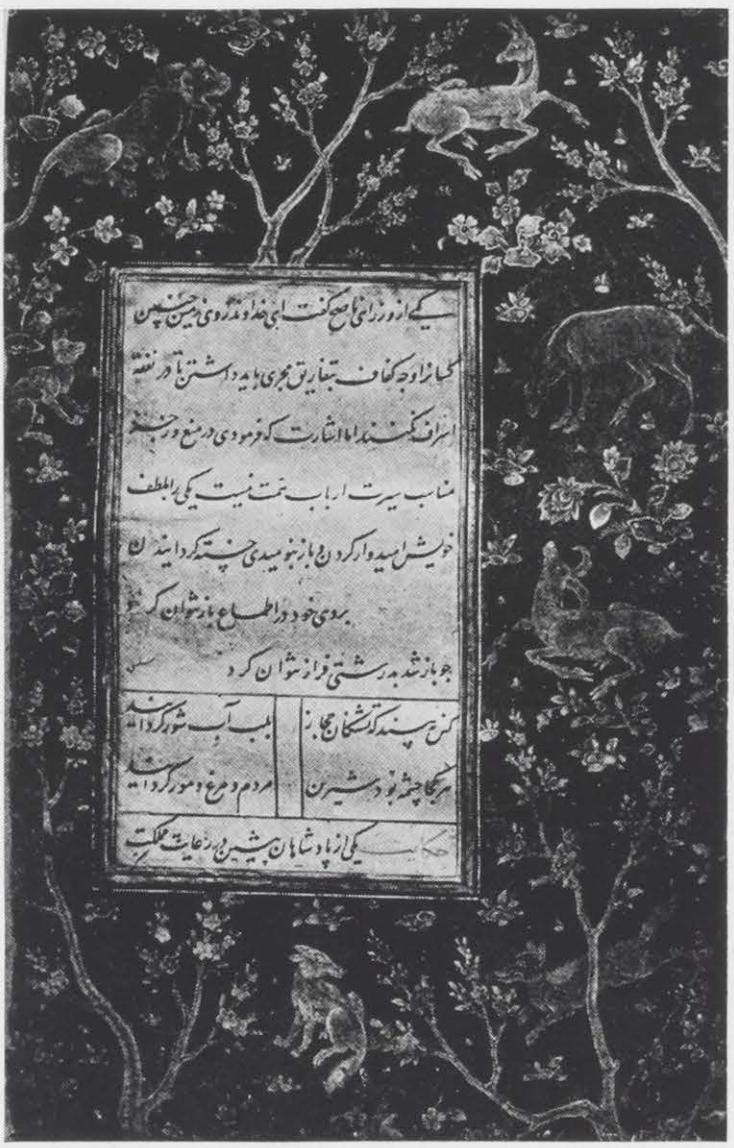


Fig. 15. Leaf from a *Gulistan* by Sadi
Persian, XVI Century

the painting is careless. This Museum possesses several manuscripts and single miniatures illustrative of this period. A manuscript of Jami's *Yusuf u Zulaikha,* written by Muhammad Kiwam of Shiraz, contains four miniatures painted probably about 1580 by an artist of Shiraz.

7. *Persian Painting of the School of Bokhara (XVI Century)*

Under the Uzbeg dynasty of the Shaibanids (1428-1599) the art of painting flourished in Bokhara, whither many artists moved or were brought by force from Herat, in 1534 or earlier. Among the artists who came to Bokhara were the famous calligrapher Mir Ali, the painter Mahmud, and probably also Shaikh-Zadah, a pupil of Bihzad, who carried on the traditions of the school of Herat (see p. 27). Mahmud Muzahib's signature and the date A. H. 953 (1546) appear on a double miniature in the copy in the Bibliothèque Nationale of Nizami's "Treasure of Mysteries," which was written in Bokhara in 1537-1538. This library also contains several other fine manuscripts of the school of Bokhara. According to Martin, there is a signed miniature by Shaikh-Zadah in a *Bustan* in the collection of L. Cartier in Paris, written in 1535.

This Museum possesses two manuscripts and several miniatures that may be attributed to the school of Bokhara. One is a manuscript of *Yusuf u Zulaikha* by Jami, written by Mir Ali al-Husaini in the year 1523-1524; the accompanying miniatures seem to be of somewhat later date, probably around 1540. One interesting painting represents Joseph (Yusuf) leaving the ship on his arrival in Egypt (fig. 16). The influence of the school of Bihzad is quite evident in the landscape and in the figures, which have characterstic Bokhara turbans with round or conical caps. The same types may be seen in a miniature (fig. 17) illustrating another manuscript in our collection, a *Bustan* by Sadi. The scene in figure 17 represents a sultan of Syria interviewing two dervishes in a garden. It is painted in the vivid, enamel-like colors which are so characteristic of the Bokhara school of the sixteenth century.

Towards the end of the sixteenth century new fashions in

Fig. 16. From a MS. of *Yusuf u Zulaikha* by Jami
Persian, Bokhara, about 1540

dress, especially in the form of the turban, appear in the miniature paintings of the Bokhara school. A charming little miniature of this period in this Museum represents a girl filling a cup with wine for her beloved; a tree in a rocky landscape affords a picturesque setting (fig. 18). This painting may be attributed to the Bokhara school of the late sixteenth or early seventeenth century. The enormous turbans soon became popular all over Persia and may be seen in many miniatures of the Shah Abbas period.

8. *Persian Painting in the Shah Abbas Period (1587-1629) and Later*

At his new capital of Ispahan, Shah Abbas founded an academy of painting in which Persian artists copied masters of the past. Manuscripts were still illustrated, especially Firdausi's *Shah-namah* which described the heroic past of the Persians; but genre scenes and portrait painting were more popular.

In the Metropolitan Museum are two manuscripts of a *Shah-namah*, dating from the Shah Abbas period and illustrated with many miniature paintings. One, dated A. H. 996 (1587/88), has forty full-page miniatures of good quality. The other, dated A. H. 1014-1016 (1605-1608), contains eighty-five large miniatures by unidentified artists. The compositions and color schemes are pleasing. The figures and landscapes are studied from nature and reveal many of the qualities found in paintings by Riza Abbasi.

The outstanding painter and calligrapher at the courts of Shah Abbas (1587-1628) and Sufi (1629-1647) was Ali Riza Abbasi. His genre scenes and portraits are characterized by close observation of the life around him and rendered in a mannered, calligraphic style, which was probably originated by Aka Riza, an artist who worked in the latter part of Shah Tahmasp's reign as well as in that of Shah Abbas. Several

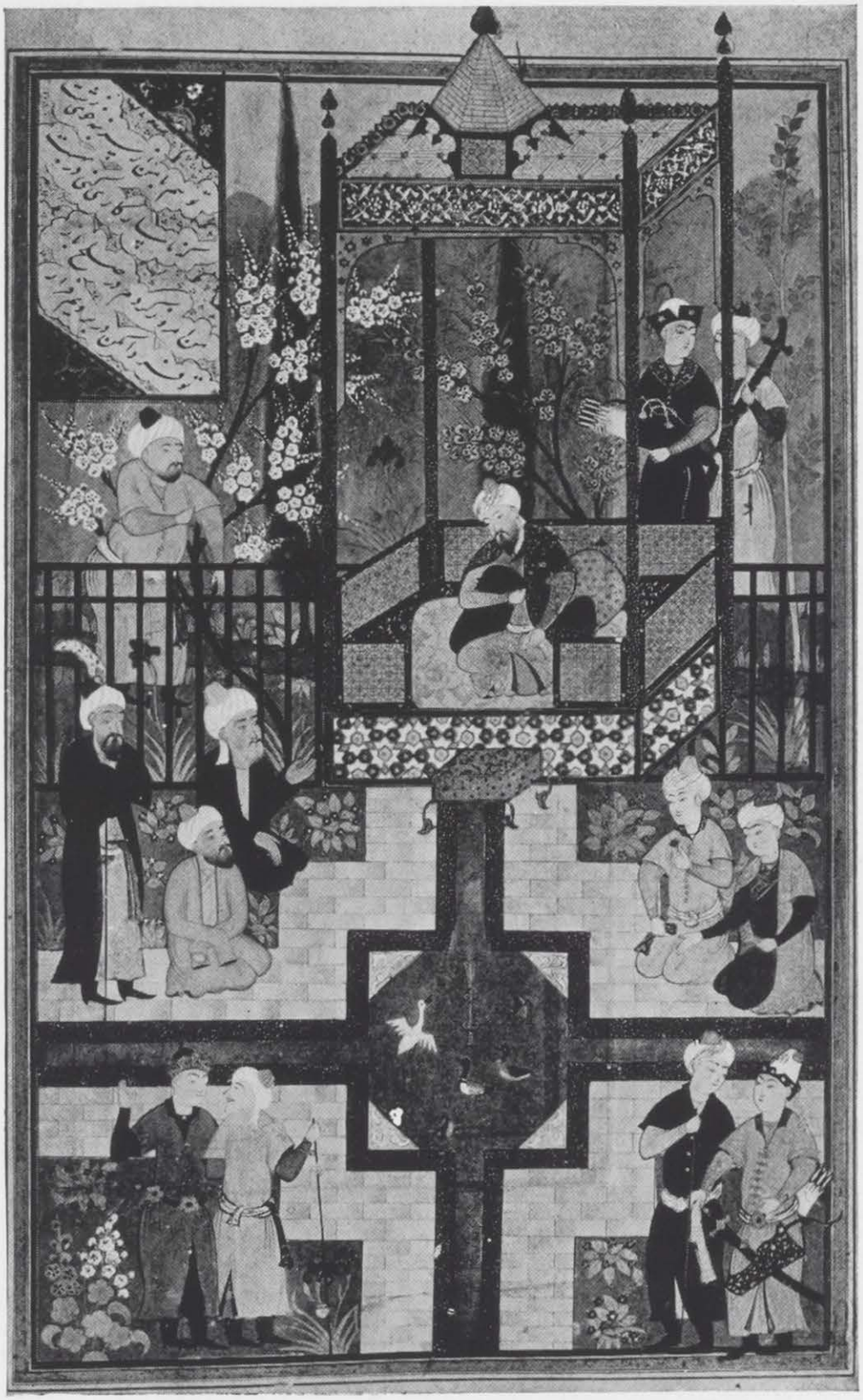


Fig. 17. From a MS. of the *Bustan* by Sadi
Persian, Bokhara, XVI Century

drawings signed by Aka Riza are in Boston, in the Louvre, and in the Bibliothèque Nationale in Paris. Riza Abbasi's earliest known work, which represents a pilgrim, bears the date 1598. This Museum possesses several drawings by Riza Abbasi or in his style. One, from a sketch-book, represents a man sewing (fig. 19). Another, in which touches of color are introduced, shows a youth holding a wine bottle and a cup, and an old man leaning on a staff (fig. 20); both figures are signed: "Drawn by the humble Riza Abbasi."

Persian painting during the second half of the seventeenth century and throughout the eighteenth felt the dominating influence of Riza Abbasi. His style and manner of drawing were imitated by many painters, such as Muin, Yusuf, and Muhammad Kasim, but they lacked the creative power of the master. By Muhammad Kasim is a drawing in our collection, dated A. H. 114—evidently a contraction for A. H. 1114 (1703) —which represents the chastisement of a pupil.

In the eighteenth century, Persian painting sank to a low level, both in wall decoration and in miniature painting, owing partly to European influence and partly to the absence of any real creative power in the nation at this time.

9. *Miniature Painting in Turkey*

The conquest of Constantinople by Muhammad II in 1453 brought the Turkish Empire into closer contact with the artistic life of Europe. In 1480, Gentile Bellini, the famous Italian painter, was summoned to the court at Constantinople. To him is attributed a portrait of a Turkish prince now in the Gardner Museum in Boston. Works of the French artist Clouet were copied by Haidar Bey, a well-known Turkish painter of the court of Sulaiman (1520-1566). In the sixteenth century many Persian calligraphers and painters such as Shah Kuli, a pupil of Mirak, and Veli Jan, a pupil of Siyawush,

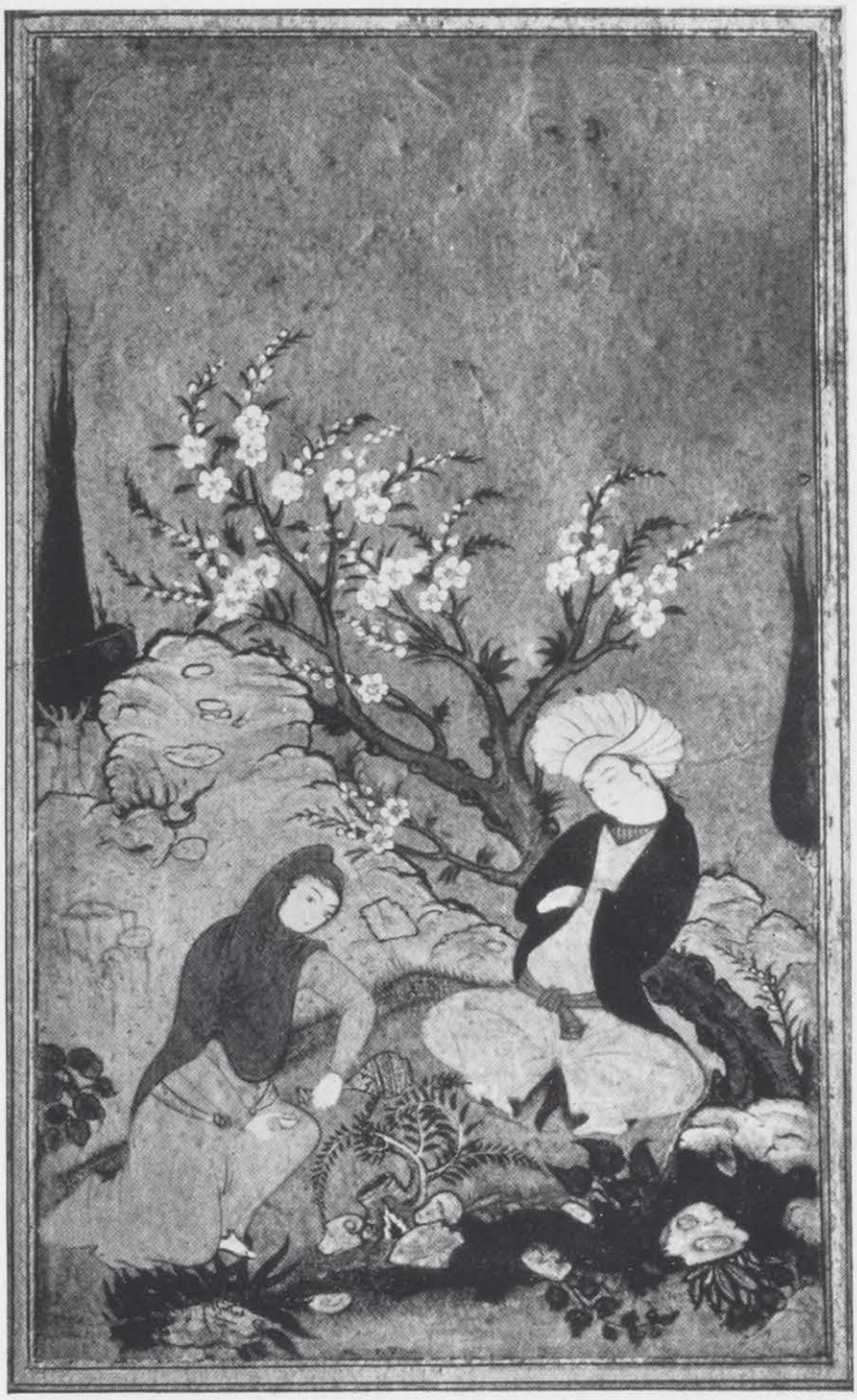


Fig. 18. Miniature, Persian, Bokhara
Late XVI or Early XVII Century

went to Constantinople. Their influence is seen in miniature paintings such as that illustrated in figure 21. Interesting to note are the distinctive Turkish costumes, especially the huge turbans and other head-gear worn by soldiers and guards.

Fig. 19. Drawing by Riza Abbasi
Persian, XVII Century

10. *Indian Painting: The Mughal School*

The conquest of Hindustan by the Mohammedan Babur, a descendant of Timur, brought northern India again into touch with the Mohammedan world. The new dynasty of Mughals, originally from Turkestan, found in India a highly developed native art both in sculpture and painting, based on a great na-

tional tradition. Although at the Mughal court an Indo-Persian style was evolved, the native school carrying on the indigenous tradition continued to flourish, especially in Rajputana, in northern India.

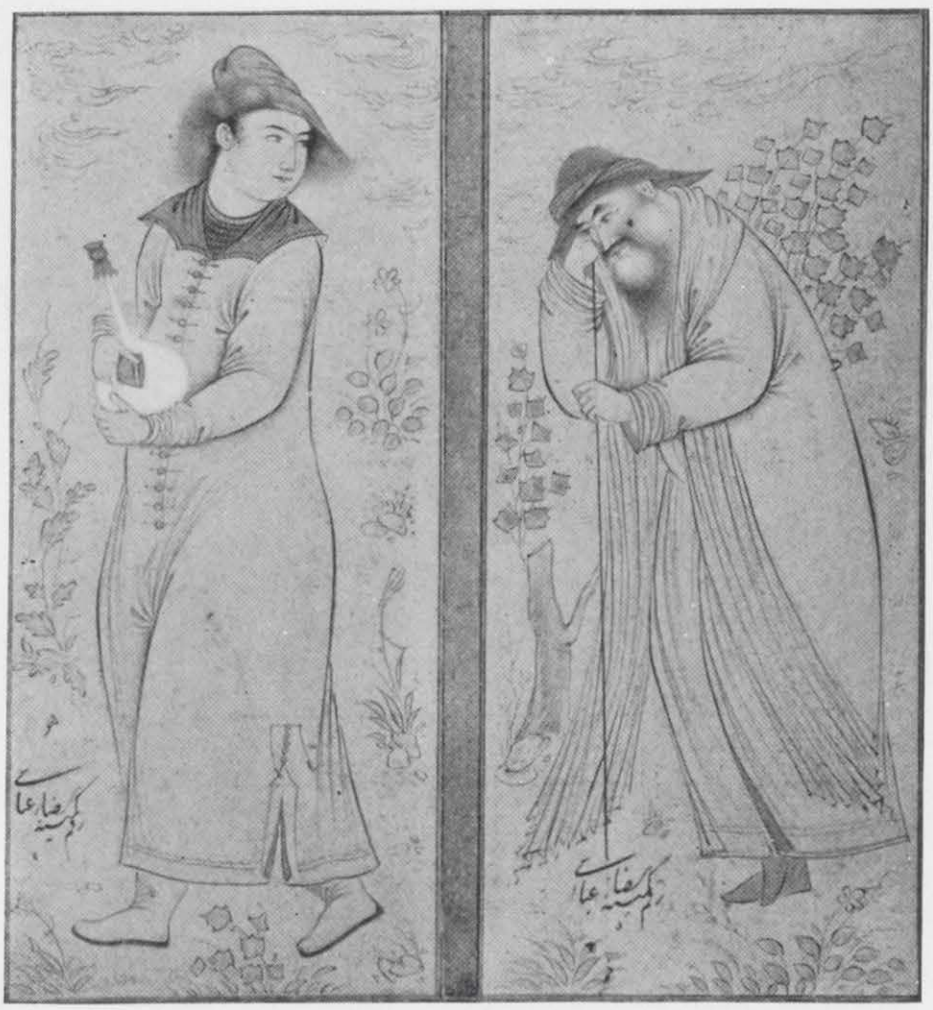


Fig. 20. Tinted Drawing by Riza Abbasi
Persian, XVII Century

A. Periods of Babur (1526-1530) *and Akbar* (1556-1605)

Little is known of the painting practised at the court of Babur, although we learn from literary sources of the great artistic taste of this emperor who was at the same time a learned philosopher, a hunter, a wide traveler, and a lover of nature. Very few miniature paintings may be attributed to his time. Küh-

nel assigns to this period a painting of a sea fight in an album[5] of paintings once owned by the Emperor Jahangir and now in the State Library, Berlin. This painting shows clearly the influence of Bihzad and the school of Bokhara.

The successor of Babur was Humayun, who was forced into exile in 1540 by the Afghan prince, Shir Shah, and did not return to power until 1555. Humayun spent his years of exile in Persia, where he was entertained by Shah Tahmasp. At the court of the Persian shah, Humayun became acquainted with the work of some of the greatest Persian painters. In Tabriz, he met Mir Sayyid Ali, an artist of the school of Bihzad, and Khwaja Abdus Samad from Shiraz. In 1550 these two masters went to Kabul to become court painters of Humayun, who ordered them to illustrate the Persian romance *Amir Hamzah* with fourteen hundred large pictures painted on cloth. The surviving paintings of this monumental work are now scattered in several collections, the greatest number being in the Industrial Museum at Vienna. In America there are about fifteen paintings from the *Amir Hamzah,* of which five are in this Museum. The majority of these illustrations were painted in the time of Akbar, Humayun's successor, by Mir Sayyid and Abdus Samad with the help of Hindu painters.

Like his father Humayun, Akbar was a great lover and patron of the arts, especially painting. In 1569, Akbar built a new city, Fathpur-Sikri, for his residence. His palaces there and elsewhere were sumptuously decorated with mural paintings, executed by Persian and Indian artists. In order to develop a native school of painting, Akbar established a State Academy, where about one hundred artists, mostly Hindus, were employed. According to the *A'in-i-Akbari,* or "Institutions of Akbar," written by the historian Abu 'l-Fazl, these

[5] Separate paintings, made to be kept in albums, were very popular in India under the Mughals, although book illustration was also extensively practised.

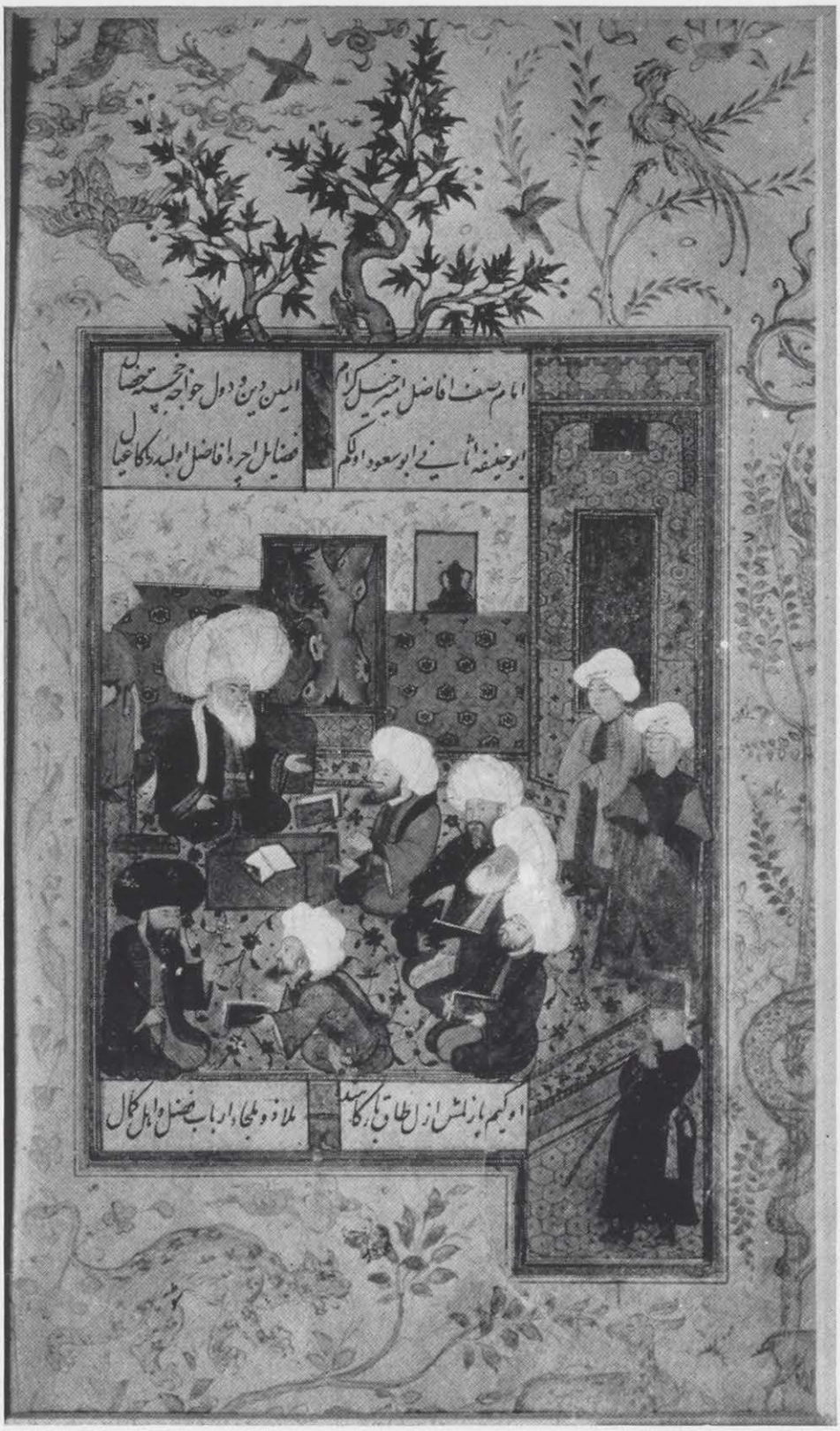


Fig. 21. Miniature, Turkish, XVI Century

artists painted illustrations for manuscripts of Persian prose and poetry. Abu 'l-Fazl had a great admiration for the Hindu artists, who played an important part under Persian guidance in the development of the Mughal school of painting. For the instruction of native artists there were not only Persians working at the court, but also magnificent manuscripts illustrated by Bihzad, Mirak, and Sultan Muhammad available in the imperial library. Akbar's court painters copied some of the finest of these works, and of these we have an example in our collection. It is a *Haft Paikar,* or "Seven Portraits," by Nizami, presented to the Emperor Akbar, and bears the date A. H. 988 (1580/81). It contains five miniatures with the signature of Bihzad. The style of the miniatures is distinctly Timurid, but the range of color and certain details of the drawing indicate that they were copied in the time of Akbar from an original fifteenth-century manuscript. The signatures of Bihzad are therefore not authentic.

The illustrations of the *Amir Hamzah,* which were probably executed between 1556 and 1575, give us an excellent idea of Mughal customs, architecture, and costumes. As one would expect in paintings of this time, the colors, drawing, and ornament are strongly Persian in character. A typical example, representing a battle scene, is reproduced in figure 22.

Towards the end of the sixteenth century, Mughal paintings became more distinctively national in style through the influence of Hindu tradition. The development of this style may be well studied in our large and representative collection of Indian miniatures. Many of them bear signatures of the painters of Akbar's academy — Farrukh Beg the Kalmack, Basawan, Dharam Das, Nar Singh, and others. Not infrequently Persian and Indian styles are combined in one painting, as may be seen in an illustration (fig. 23) from a manuscript of the *Razm-namah,* the Persian version of the great Hindu epic,

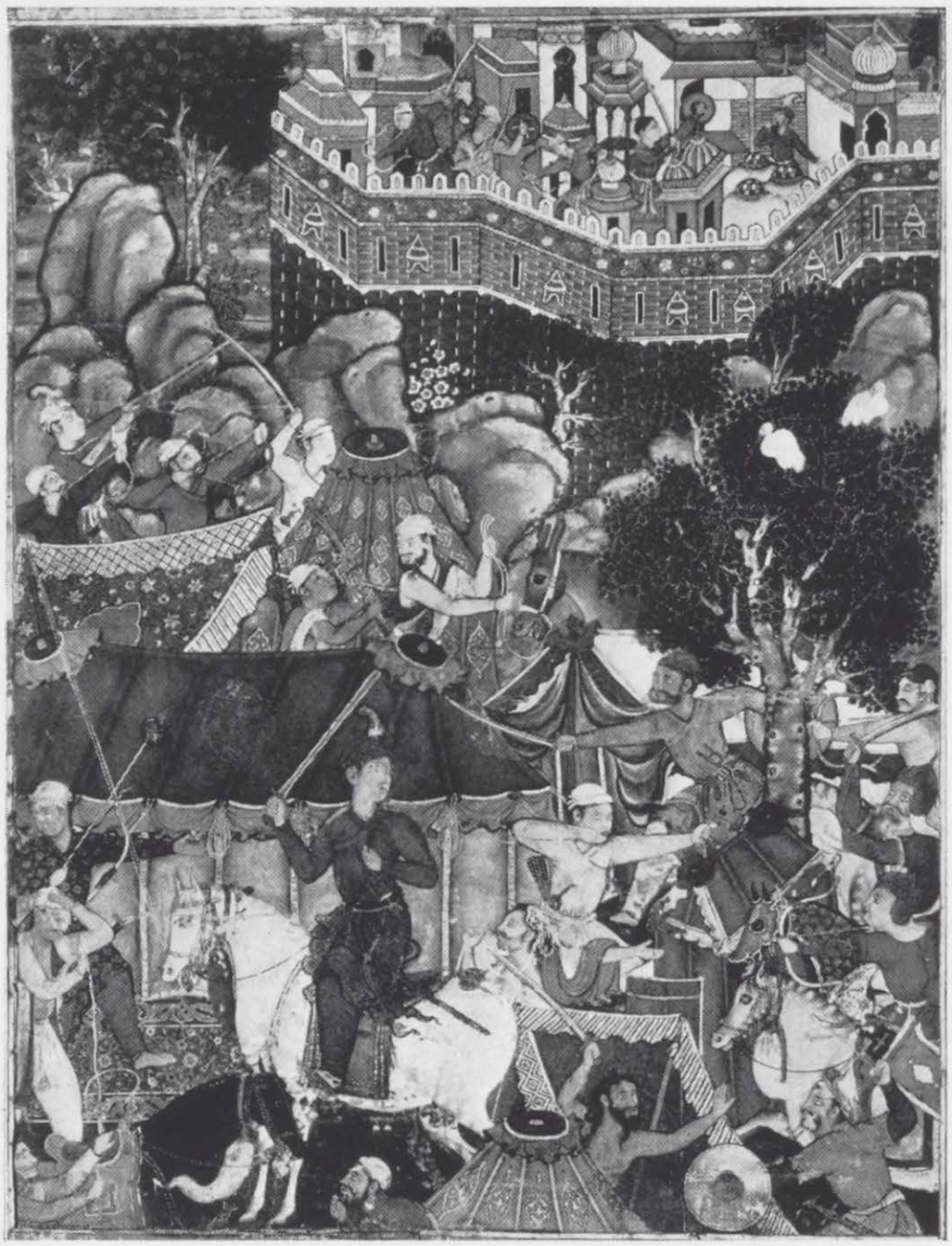


Fig. 22. Illustration for the *Amir Hamzah*
Mughal, about 1556-1575

the *Mahabharata,* dealing with the battles between two heroic families, the Pandavas and Kauravas. As is often the case in Mughal paintings, two scenes are represented in this miniature. The lower one depicts in a realistic way the furious fighting of the two armies, one led by a Pandava prince, probably the mighty Arjuna, and the other by the blue-hued Krishna, the incarnation of the Hindu god Vishnu. The brilliant colors of the costumes and ornament recall the work of the Persian artists responsible for the illustrations of the *Amir Hamzah.* Entirely different in style is the scene depicted in the upper part of the miniature. Here the figures and landscape are drawn on a smaller scale with an attempt at perspective. The atmospheric landscape and the fantastic architecture are painted in subdued colors foreign to the Persian taste. It is quite probable that this miniature was painted by two artists. Such a division of labor was practised by the court painters of Akbar, as is proved by the occasional appearance of the signatures of two or three painters on one miniature.

Entirely Hindu in style is another superb miniature painting from the same *Razm-namah* as that illustrated in figure 23. The subject is one of Krishna's miracles, the lifting of the mountain Govardhan. The realistic rendering of figures and landscape and the soft and delicate gradations of color that are so admirably exemplified in this miniature were the great contributions of the Hindu artists to the Mughal school of painting.

The three leading Indian artists at the court of Akbar were Daswanth, Basawan, and Lal. Painted at the end of the sixteenth century by Basawan, who was a pupil of Abdus Samad, is a charming miniature (fig. 24) in our collection. Of Basawan, Abu 'l-Fazl wrote: "In backgrounding, drawing of features, distribution of colours, portrait painting, and several other branches, he is most excellent, so much so, that many

Fig. 23. From a MS. of the *Razm-namah*
Mughal, Late XVI Century

critics prefer him to Daswanth."[6] Basawan's style, distinctly personal, is entirely free from all Persian conventions. The colors are subdued rather than brilliant, and the outlines softly drawn. The aërial perspective and the roundness of the figures are doubtless a result of European influence, which came into India with the missions of the Jesuits. In 1578 Akbar requested the Portuguese authorities of Goa to send him missionaries, and with them holy books, especially the Gospels, which he desired to understand, and from which he hoped to gain comfort. The Jesuits also brought with them many Christian pictures which were copied by Hindu artists.

B. Period of Jahangir (1605-1627)

Jahangir, the son and successor of Akbar, also encouraged the art of painting. Book illustration was less frequent, as the emperor's taste inclined more toward independent paintings representing episodes in his life — so admirably related by himself in his memoirs, or realistic studies of plants and animals, in which, as a devoted naturalist, he took great interest. On his travels Jahangir always had with him two or three of his court painters in order to record at once events of importance. Persian influence is still evident in the paintings of Jahangir's time, but, in general, the style is distinctively Indian. In these paintings green is often the predominating tone.

Jahangir was very fond of birds and animals, and ordered such artists as Mansur, Murad, and Manohar to paint the more beautiful specimens. The most famous of these painters was Mansur, who became such a master in painting that Jahangir wrote: "[Ustad Mansur] has become Nadiru 'l-'Asr (wonder of the age), and in the art of drawing is unique in his generation."[7] Mansur was also a painter of flowers, and to

[6] Percy Brown, *Indian Painting under the Mughals*, p. 122.

[7] Brown, *op. cit.*, p. 82.

Fig. 24. Miniature by Basawan
Mughal, Period of Akbar (1556-1605)

this Jahangir refers in his memoirs: "The flowers that are seen in the territories of Kashmir are beyond all calculation. Those that Nadir-ul-Asar Ustad Mansur has painted are more than 100."[8] The only signed flower study by Mansur is in an

Fig. 25. Miniature by Balchand
Mughal, Period of Jahangir (1605-1627)

album in the Habibganj Library in Aligarh district, India. This Museum possesses a fine study of a pheasant with a landscape and flowers of several varieties in the background. The miniature is mounted on the back of a portrait of Shah Jahan. It may be attributed to some skilled pupil of Mansur.

[8] N. C. Mehta, *Studies in Indian Painting*, p. 80.

During the reign of Jahangir, portrait painting became extremely popular. The emperor himself was constantly portrayed, either alone or with his courtiers, and his example was followed by the nobles who surrounded him. The chief portrait painters at the court of Jahangir whose names are known

Fig. 26. Portrait of Shah Jahan. Mughal Period of Shah Jahan (1627-1658)

were Bishandas, Manohar, Muhammad Nadir, Abu 'l-Hasan, and Govardhan. Jahangir's favorite portrait painter was the Persian Abu 'l-Hasan, the son of Aka Riza, upon whom Jahangir bestowed the title *Nadiru 'ẓ-Zaman,* or "Wonder of the Age." Among the single portraits and groups in this Museum, a miniature (fig. 25) by Balchand may be instanced. It represents Akbar visited by Jahangir and his son, afterwards Shah

Jahan. The faces, painted with infinite care, are masterly examples of portraiture in the mature Mughal style.

The representation of Hindu ascetics and hermits conversing with princes and nobles was a popular subject with the Mughal painters. A characteristic scene of this kind in our collection is signed by Manohardas.

C. Periods of Shah Jahan (1627-1658) *and Aurangzib* (1658-1707)

Under Shah Jahan, the art of portraiture continued popular, although the emperor himself was less interested in painting than was his predecessor. In the Metropolitan Museum are two famous portraits of Shah Jahan. One represents him seated in state upon the peacock throne (fig. 26); the other shows him on horseback in all his regal splendor. Among the artists of the period are Muhammad Fakhirallah Khan, Mir Hashim, Hunhar, and Anup Chhatar. By the latter is a portrait drawing in our collection of Sayyid Amir Khan.

Dara Shikoh, Shah Jahan's eldest son, was, like his father, a collector of pictures. There are several portraits of this prince who never reigned as emperor, the throne having been usurped by his younger brother, Aurangzib. One in this Museum shows the prince on horseback, surrounded by his retinue.

Under Aurangzib, the painters were no longer connected with the court. Instead, nobles and high officials began to keep painters of their own. This loss of royal patronage, combined with other factors, led to the decline of Mughal painting in the eighteenth and nineteenth centuries.

11. *Indian Painting: The Rajput School*

Contemporary with the Mughal school of painting, several native schools flourished in Rajputana, Bundelkhand, and the Panjab. Coomaraswamy divides these Rajput paintings

into two main groups, Rajasthani (Rajputana and Bundelkhand) and Pahari. The latter is further subdivided into the Jammu and Kangra schools.

Fig. 27. Miniature, A Musical Mode
Rajasthani, Late XVI Century

Rajput paintings, of which the oldest known specimens date from the late sixteenth century, differ in style from those of the Mughal school. They have the characteristics of folk art, and are based on the tradition of the native schools of wall

painting that produced the famous frescoes at Ajanta and Bagh. The subjects, also, are different from those of the Mughal school. The latter was concerned mainly with portraiture and the recording of historical events, while the Rajput school derived its subjects chiefly from folklore and the great Indian epics.

The best examples of the Rajasthani school are the Rag-

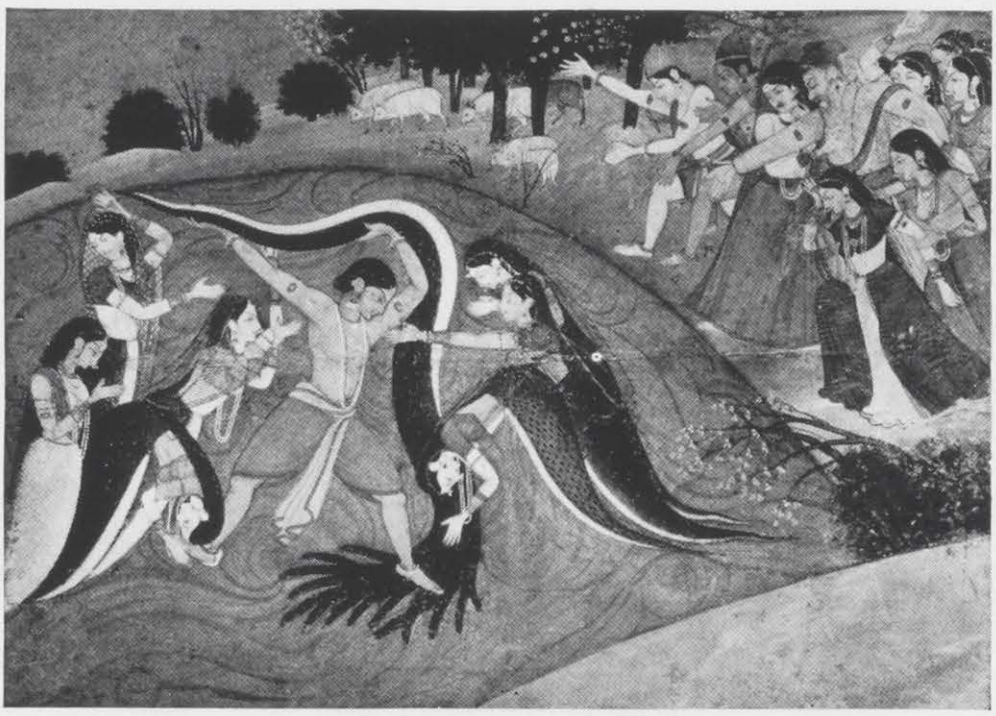


Fig. 28. Miniature, Krishna Quelling Kaliya
Kangra, XVIII Century

mala pictures, depicting the thirty-six Ragas and Raginis, or musical modes. Two paintings of this kind are in this Museum, one of which, illustrating the mode Sadh Mallara Ragini, is seen in figure 27. The Ragmala illustrations are assigned by Coomaraswamy to the late sixteenth century. The hasty technique and vigorous colors are quite unlike the more sophisticated Mughal or Persian painting.

To the Rajput school of the eighteenth century are attributed several cartoons for the mural paintings in the Jaipur

Palace Library. Two such cartoons are in this Museum, one of them representing two female musicians, the other, a beautiful head of Krishna.

To the Jammu branch of the Pahari school are attributed the large illustrations in the Boston Museum of Fine Arts and in our collection, representing the siege of Lanka, an episode from the Hindu epic poem, the *Ramayana*. The style of these paintings may be characterized as mural, in contrast to the Mughal miniature style with its abundance of detail.

The paintings of the Kangra school belong mainly to the eighteenth century. Scenes from the *Krishna Lila* and romantic poems such as "Nala and Damayanti" are popular. A beautiful example of this school in our collection is the painting representing Krishna quelling Kaliya, whose wives plead for his life (fig. 28).

Chapter IV. Calligraphy

Examples of calligraphy mainly in Gallery E 14

The art of calligraphy, or beautiful writing, was cultivated by the Mohammedans from earliest times, and was as much esteemed as that of painting. Of Arabic writing there are two principal styles: a formal style with angular letters, and a cursive style with rounded letters. The first type of writing is known as Kufic, from the town of Kufa in Mesopotamia, where it was probably first put into official use; the second, as Naskhi.

Kufic characters were used during a period of about five hundred years for inscriptional purposes and for copying the Koran. The earliest known copy of the Koran is dated A. H. 168 (784/85) and there are several others of the ninth century, some of them dated. They are written on parchment in black ink with diacritical signs in red. Gilded ornaments appear at the beginning of each chapter and on the margins.

Naskhi writing was introduced into Egypt in the eleventh century and thereafter was often combined with Kufic writing, the use of which was then restricted to chapter headings. Naskhi writing came into more general use in the Mamluk period. A very fine Koran (fig. 29) of the thirteenth or early fourteenth century, written in gold with diacritical signs in red and blue, is in our collection. Of great decorative charm are the title-pages with arabesque ornament and Kufic characters in gold and blue. The text pages also are frequently decorated.

Richly ornamented Korans, of which a number of dated examples are preserved in the Khedivial Library at Cairo, were written in the fourteenth century for the Mamluk sultans.

In Spain and North Africa (the Maghrib), a special rounded form of Kufic was popular. Several leaves of Korans in Maghribi writing which date approximately from the eleventh to the twelfth century are in this Museum.

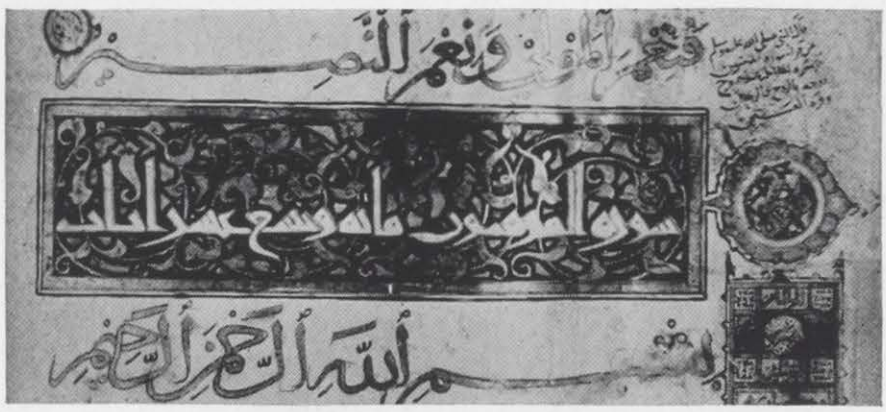


Fig. 29. Chapter Heading from a Koran
Egypto-Arabic, XIII-XIV Century

In Persia there developed sometime during the thirteenth century a form of writing known as Talik, in which the characters show a tendency to slope downwards from right to left, but the more rigid Naskhi continued in use for religious texts.

Calligraphy attained the importance of a great art in Persia as the work of many illustrious calligraphers of the fifteenth and sixteenth centuries bears witness. Frequently the names of these calligraphers appear on the colophon of the last page, sometimes accompanied by the dates. Among the masters of the fifteenth century one of the most famous is Mir Ali of Tabriz, who is credited with the invention of Nastalik. This is a highly developed form of cursive writing, combining features of both Naskhi and Talik, which came into general use in the sixteenth century. A beautiful example of Mir Ali's

early work is the manuscript of Khwaju Kirmani's love story of Humay and Humayun dated A. H. 799 (1396), in the British Museum.

The most celebrated calligrapher of the fifteenth century was Sultan Ali al-Mashhadi, who worked in Herat at the court of Husain Baikara. From his hand is a *Diwan* by Mir Ali Shir Nawai exhibited in this Museum. Both the name of the scribe and the date appear in the colophon: "Written by the poor Sultan Ali al-Mashhadi (may his sins be forgiven!) in the year nine hundred and five [1499-1500] at the capital, Herat."[1] A fifteenth-century calligrapher whose work is represented in this Museum by a manuscript of a *Diwan* by Jami is Abd al-Karim of Khwarazm. This artist was one of the two sons of the calligrapher Abd ar-Rahman of Khwarazm. The father and sons worked at Tabriz and are reputed to have introduced many innovations in the style of Nastalik writing. Another manuscript in our collection is a Koran, bearing the date Ramazan 4, A. H. 830 (June 29, 1427). It was written by Ibrahim Sultan ibn Shah Rukh ibn Timur Gurgan. This Ibrahim Sultan, a grandson of Tamerlane, died in 1430 or 1431. He was a great patron of letters and was renowned for his ability to write in six different styles.

A famous calligrapher of the sixteenth century was Mir Ali of Herat, who was probably a pupil of Sultan Ali al-Mashhadi. In 1533 Mir Ali went from Herat to the court of the Uzbeg ruler at Bokhara. Of his work we have a manuscript of the *Yusuf u Zulaikha* of Jami, dated A. H. 930 (1523/24), which was probably written in Herat, although it was illustrated in Bokhara. Another great calligrapher of the sixteenth century was Sultan Muhammad Nur, the son and pupil of Sultan Ali al-Mashhadi. By him is the beautiful *Khamsah* of Nizami, dated A. H. 931 (1525), in this Museum. A famous

[1] Jackson and Yohannan, *op. cit.*, p. 161.

calligrapher in the time of Shah Ismail and Shah Tahmasp was Shah Mahmud al-Nishapuri who wrote between 1539 and 1543 the *Khamsah* in the British Museum.

Chapter V. Bookbinding

Mainly in Gallery D 3; a few in Galleries E 14 and H 10

The work of the calligrapher and of the painter in the production of the beautiful manuscript books in which the Mohammedans delighted was ably complemented by that of the binder to whom fell the responsibility of protecting the precious pages from injury and of giving to the exterior of the book an appearance worthy of the treasure inclosed within its covers. For bookbinding, leather is the ideal material. Although in the late period of Mohammedan art lacquered papier-mâché came into favor, leather was used exclusively by the early binders and never was wholly discarded. Various processes were employed in the decoration of these leather-bound books. The leather might be tooled, pressed, or stamped, either with or without gold — although usually gold was used — and the cover further enriched by the use of cut-out work in gilded leather or paper over a colored ground. The decoration was not confined to the exterior of the covers and the flap that closed over the front edge of the book; it was also lavished on the interior faces of the covers. Indeed, these doublures, or linings, are often the most elaborately ornamented part of the binding.

The earliest known book covers of the Mohammedan period come from Egypt and may be dated from the eighth to the eleventh century. The decoration of these recalls the geometri-

cal ornament of certain Coptic bindings of the eighth and ninth centuries. Typical of the Egypto-Arabic bindings of the Mamluk period, that is, from the thirteenth to the fifteenth century, are the all-over geometrical patterns of interlacing motives, gilded and picked out with blue. Central medallions, with arabesques in the corner fields, also occur. The arabesque designs are often done in cut-work applied on a blue ground. Geometrical interlacings and gold-tooled dots are found on bookbindings of the same period from the Maghrib, or Mohammedan North Africa. Of this type there are two examples dating from the thirteenth or fourteenth century in the Metropolitan Museum.

Fig. 30. Cut-Leather Ornament
Persian, Mid-XV Century

The bookbindings produced in Persia under the Timurid dynasty are of high artistic quality. Notable bindings of this period, decorated with typical Timurid landscapes combined with Chinese motives, are on manuscripts dated A. H. 842, 850, and 887 (1438, 1446, and 1482) in the Evkaf Museum at Constantinople. The design of a cut-leather medallion inside the cover (i.e., on the doublure) of the manuscript dated A. H. 850 (1446) is very similar to one on the binding of a *Khamsah* of Nizami, in our collection, which is without doubt

Fig. 31. Exterior of a Book Cover (Detail)
Persian, XVI Century

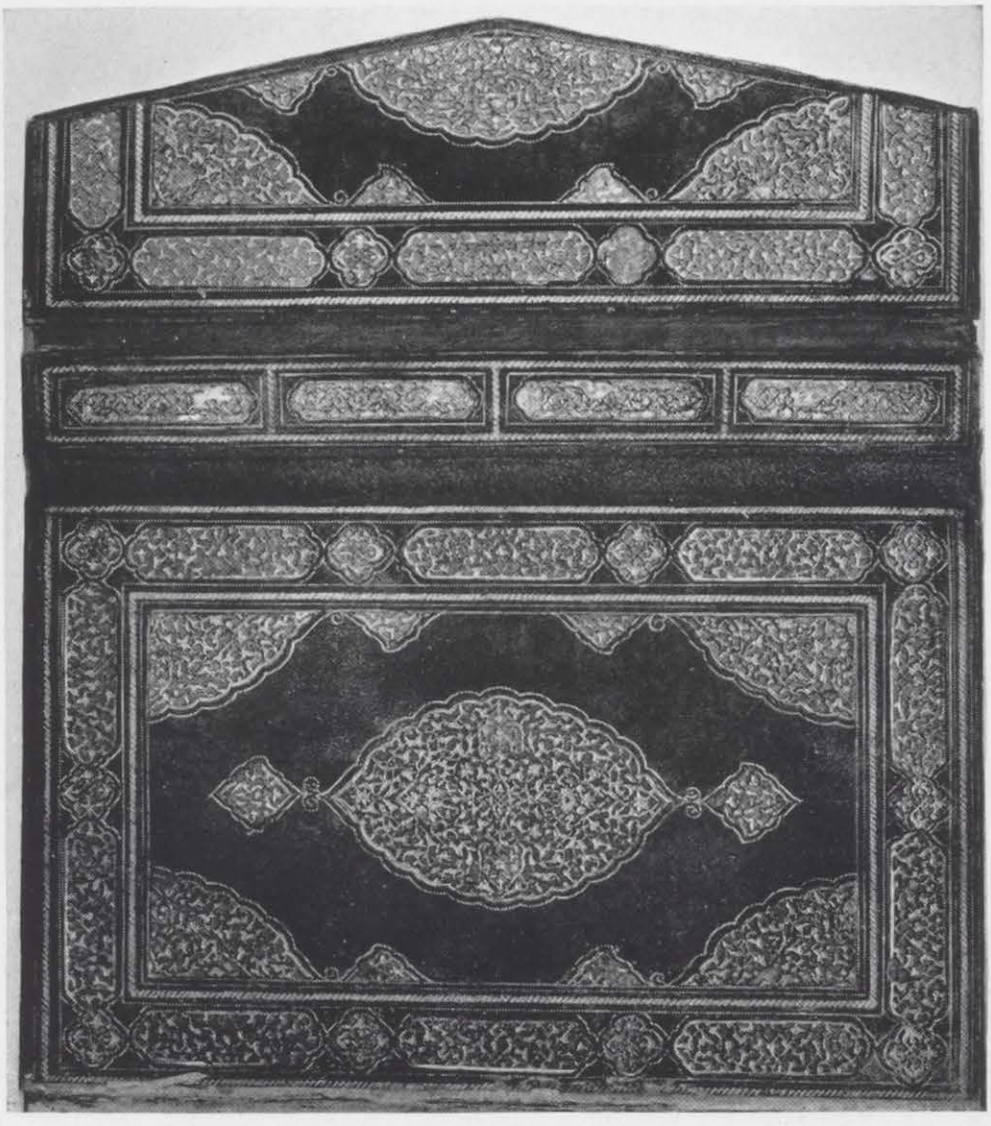


Fig. 32. Detail of the Interior of the Book Cover
Shown in Figure 31

contemporary with the manuscript, dated A.H. 853 (1449/50). The ornament (fig. 30) is composed of Timurid floral scrolls and two Chinese phoenixes in combat on a blue background.

In the sixteenth century, under the Safavid dynasty, Persian book covers were more elaborately ornamented and gold was used more abundantly. The decoration either covers the entire surface or is confined within medallions and other compartments. A magnificent example of Persian bookbinding of this period may be seen on a *Bustan* in our collection. The exterior (fig. 31) is decorated with stamped and gilded arabesques interlaced with delicate floral scrolls and Chinese cloud bands. On the interior (fig. 32) of the cover the ornament of delicate filigree work in cut-out leather consists of arabesques on backgrounds of blue, pink, and green. Another style of sixteenth-century Persian bookbinding is exemplified in our collection by the cover reproduced in figure 33. The stamped and gilded decoration of the exterior, representing birds and animals in a landscape, reflects the naturalistic style of Persian painting at this time. The interior of the cover is ornamented with cut-paper designs on gold in backgrounds of various colors.

In the time of Shah Tahmasp lacquered bookbindings came into vogue. Although leather was sometimes used, the covers were usually of papier-mâché. The decoration was painted over a coat of fine plaster and then covered with a protective layer of transparent lacquer. The paintings, which represent landscapes, hunting scenes, gardens, and bouquets of flowers, are in the style of the contemporary miniature paintings.

Lacquered book covers of the sixteenth century are rare. Those of the following centuries are more common, especially those of the eighteenth and nineteenth centuries. These later bindings are sometimes decorated with figure subjects, but

Fig. 33. Exterior of a Book Cover
Persian, XVI Century

more commonly with floral ornament of naturalistic character. The painting and the quality of the lacquer, which often has an unpleasant slimy appearance, are inferior to the sixteenth-century work. Mirrors (fig. 34), boxes, pen-cases, and other objects of papier-mâché were also decorated with gilding and painting under lacquer.

Beautiful bookbindings were also made in Turkey, but as the craft followed much the same stylistic development as in Persia, no special mention is necessary.

It may be of interest to note that Near Eastern bookbindings were freely imitated in Italy, particularly in Venice, in the late fifteenth and in the sixteenth century, and through this means many decorative motives of Oriental origin became current in European binding designs. Italian trade with the East was also responsible for the introduction of morocco and the use of gold tooling in the decoration of book covers.

Fig. 34. Lacquered Mirror Case
Persian, XVII Century

Chapter VI. Sculpture in Stone and Stucco

Mainly in Galleries E 14 and E 14 a

From the beginning, Mohammedan sculpture was purely decorative in function. The exterior and interior of palaces, mosques, and tombs were lavishly decorated with relief sculptures in stone, marble, and stucco. The harder substances were also used for gravestones, pulpits, fountains, jars, and basins.

1. *Early Stone and Stucco Sculpture in Mesopotamia, Egypt, and Persia (IX and X Centuries)*

Important examples of early stone and marble sculpture have been found in Syria and Mesopotamia. A magnificent example is the sculptured stone façade of the palace of Mshatta in the Syrian desert. This façade, which probably dates from the eighth century, is now in the Kaiser Friedrich Museum, Berlin. Its rich embellishment of vine scrolls, acanthus leaves, palmette devices, animals, and birds is carved in deeply undercut relief that makes an extremely effective contrast of light and dark. Another Syrian palace of the eighth century is that of Rabat Amman. Here the decoration consists of floral and arboreal motives of Sasanian type. To the period of the Caliph Mansur (754-775) of the Abbasid dynasty, is assigned a marble mihrab, or prayer niche, formerly in the Mosque of al-Khasaki in Bagdad and now in the Irak Museum. The decoration shows a composite ornament of vases with vine scrolls and acanthus leaves.

Stucco as a material for wall decoration was used in the Parthian and Sasanian periods. On one of the two fragments of late Sasanian stucco reliefs in this Museum, the decoration consists of a ram in high relief within a medallion set with pearls; on the other, of wing-shaped palmettes. Other Sasanian stucco reliefs, in the Kaiser Friedrich Museum, are decorated with geometrical patterns, scrolls, and palmettes, or represent brightly painted human figures and animals in high relief. Such sculptures as these may be regarded as prototypes of the ninth-century wall stuccos of Samarra and the thirteenth-century stuccos of Persia.

The interior of the palaces and private houses of Samarra, excavated by Sarre and Herzfeld, were decorated to the height of about forty inches with stucco dados in low relief. Except for a few fragments, all the panels exhibited in the Kaiser Friedrich Museum, Berlin, are casts made at Samarra from the same materials as the originals. Four such casts (fig. 35) are exhibited at the Metropolitan Museum. Herzfeld recognizes at Samarra three styles of ornamentation. In the first style, represented by our reliefs, the wall panels were cast in moulds. The ornament consists of reciprocal patterns of palmette devices, incised spirals, lines, and dots. In the second style the ornament is again abstract, and is formed of palmettes and vase motives within polygonal and spherical compartments. In the third style vine scrolls are generally substituted for abstract forms. In both the second and the third style, the ornament is deeply undercut on the wall itself, instead of being cast. The third style, recalling the ornament of Mshatta, is the earliest and is based on traditions of East Christian and Sasanian art. The sloping cut and many of the motives of the first style have their prototypes in the art of Central Asia, India, and China. The second style is a transitional one.

A stucco decoration similar to that of Samarra may be seen

in the Mosque of Ibn Tulun, founded in 876 at Cairo, and in fragments excavated at Fustat. A mosque at Nain near Yezd in Persia is embellished with elaborate stucco decorations resembling those of the third Samarra style. The ornament consists of Kufic inscriptions, palmettes, and vine scrolls with conventional leaves and grapes within compartments formed by interlaced bands. The Nain stuccos may be assigned to the end of the tenth or the beginning of the eleventh century. A similar vine pattern appears in Egypt in the stucco decoration of the Coptic monastery, Deir es-Suryani.

2. *Stone and Stucco Sculpture of the Seljuk Period in Mesopotamia, Syria, and Asia Minor (XI to XIII Century)*

After conquering Persia and Mesopotamia the Seljuks established themselves in Asia Minor, and there in the capital, Konia, erected in the thirteenth century many important buildings that were richly decorated both inside and out with relief sculpture in stone and stucco. Notable among these monuments are the mosque at Diwrigi, built in 1228, and the Sirtcheli and the Karatai Madrasah at Konia. An excellent example of Seljuk sculpture is a relief in the Konia Museum representing a winged figure supporting a globe or sun. Originally this relief adorned a tower of the walls of Konia. In the same museum are other examples of Seljuk stone and stucco sculpture.

A number of specimens have been found at various places in Mesopotamia, especially at Diarbekr (Amida), Mosul, and Bagdad. At Diarbekr are preserved several stone reliefs with representations of animals and birds from such monuments as the bridge (1065), the twelfth-century Aleppo Gate, and the towers of the city wall (1208).

In the great mosque of Mosul are two beautiful stone mih-

rabs with sculptural arabesques and Koranic inscriptions in Kufic characters. The earlier and much the finer example is dated A. H. 543 (1148); the later may be assigned to the thirteenth century. Another thirteenth-century mihrab (1248) with linear arabesques and Arabic inscriptions is in the Mosque Aun ad-Din, also at Mosul.

Fig. 35. Cast from a Stucco Wall Panel. Mesopotamian Samarra, IX Century

The Talisman Gate at Bagdad inscribed with the name of the Abbasid Caliph Nasir (died 1221) shows a seated figure flanked by two snakelike dragons with knotted bodies, symbolizing the subjection of the forces of evil. The background is patterned with graceful arabesques in low relief.

Of notable importance are the Seljuk stucco panels in the Evkaf Museum. They come from Diarbekr, the residence of the Ortukid sultans of northern Mesopotamia, and are deco-

rated with human figures, animals, birds, and "sirens" on a background of palmette scrolls. Interesting stucco reliefs are in the Kara Sarai, or "Black Palace," of Badr ad-Din Lulu at Mosul; they show birds and human figures on a background of scrolls ending in the heads of beasts.

3. *Stucco Sculpture in Persia (XII to XIV Century)*

The invasion of the Turkish Seljuks was of great significance in the development of Mohammedan art and culture.

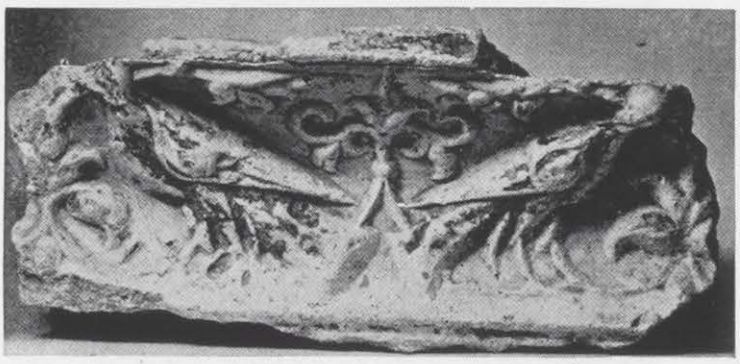


Fig. 36a. Fragment of a Stucco Frieze
Persian, Rhages, XII-XIII Century

During the eleventh and twelfth centuries, the Seljuk rulers resided at Merv, their new capital in Khorasan, in the center of which city stood the tomb of Sultan Sanjar (1117-1156), mentioned by the Arabic geographer Yakut, who lived in Merv for three years (1216-1219). The interior of this tomb has a rich stucco decoration consisting of inscriptions and arabesques in bands or larger panels. Many of the motives are characteristic of eastern Persian ornament of the twelfth century. Under the Seljuks Khorasan undoubtedly played a great rôle in the history of stucco decoration, about which future excavations may yet enlighten us.

In Rhages and other places in Persia, painted stucco reliefs have been excavated from time to time. Complete figures in

very high relief are in the Kaiser Friedrich Museum and the Detroit Institute of Arts. The conventionally treated faces are of the Mongolian type familiar to us from Persian lustred ware of the thirteenth century. Occasionally one finds also complete medallions with figure subjects forming part of a wall decoration that must have been quite elaborate in character. We possess two small fragments of friezes, probably borders (figs. 36 a and b), from Rhages. One of them which may be assigned to the twelfth century shows two convention-

Fig. 36 b. Fragment of a Stucco Frieze
Persian, Rhages, XII-XIII Century

alized lions with tails ending in palmette devices. The second relief, which retains traces of polychromy, is decorated with birds and palmette trees of thirteenth-century type.

Stucco continued to be employed for sculptural decoration in Persia in the fourteenth century and later. The mihrab at the Friday Mosque at Veramin, dated 1322, may be mentioned as an important monument of the early fourteenth century. Other excellent examples are the stucco mihrab in the Friday Mosque at Ispahan, dated 1310, and the stucco ornament of the fourteenth-century Sufi monastery at Turbet-i-Shaikh Jam in eastern Persia.

4. *Later Stone and Stucco Sculpture in Egypt (XI to XV Century)*

The mosques at Cairo are rich in sculptured decoration. The Mosque of al-Hakim (990-1003) and the oldest part of the Mosque of al-Azhar (978) afford characteristic examples of Fatimid stone and stucco reliefs. Of the eleventh century is the stucco decoration in the Giyushi Mosque, at Cairo, built in 1085 and distinguished by the intricacy of its ornament. Dating from the twelfth century is the stucco ornament of the entrance dome of the Mosque of al-Azhar with linear arabesques of an advanced type. Thirteenth-century stucco ornament may be seen in the tomb of Sultan Kalaun and in the mosque of his son, Muhammad an-Nasir. Of the fourteenth century are the decoration of the dome in the Mosque of Aksunkur (1347) and the stucco frieze with Kufic inscriptions on a rich arabesque ground in the Mosque of Hasan (1358). Stucco as a decorative material was still in use in the fifteenth century, although stone and marble were then preferred.

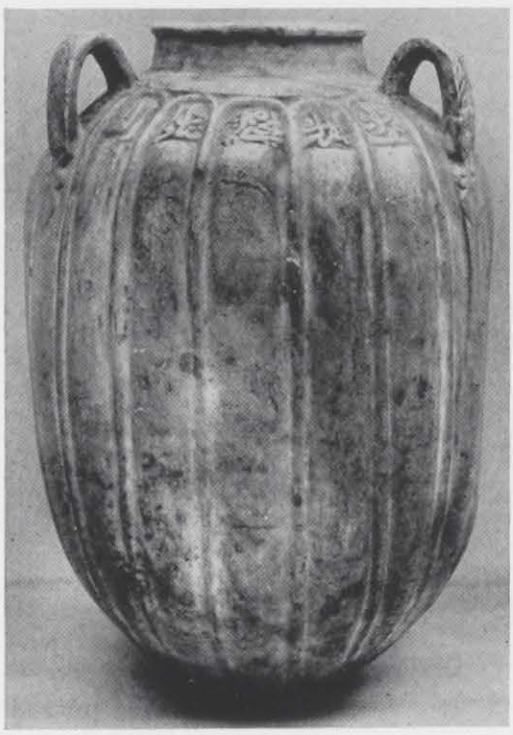


Fig. 37. Marble Water Jar
Egypto-Arabic, XIV Century

Marble was used in the Mamluk period for fountains, basins, prayer pulpits, and the large marble water jars which rested on stands in the mosque halls. Such a jar (fig. 37), of ovoid shape, is in this Museum, and others are in the museum at Cairo. On the upper part of our jar is an Arabic inscription

which reads: "His Excellency, the Generous, the Upholder [of Justice], Nasir ad-Dunia the Wise" (1293-1340). A marble stand, decorated with seated figures and intended to hold one of these large marble vases, is also in our collection.

5. *Stone and Stucco Sculpture in Spain and North Africa*

Marble was also used in Spain for jars and basins. An ablution basin in the Archaeological Museum at Madrid, decorated with palmette trees in niches, bears the date A. H. 377 (987). Other important Hispano-Moresque sculptures are a marble basin with a decoration of animal forms and the famous lion fountain, both in the Alhambra at Granada.

The Moorish artists of Spain and North Africa made prolific use of stucco as a material of decoration. The earliest known examples go back to the tenth century, and consist of fragments found at Medinat ez-Zahra near Cordova. Stucco decoration in Spain was at first influenced by Mesopotamian and Egyptian traditions, but early developed an entirely independent style that was unknown in other Mohammedan countries.

The most splendid example of the fourteenth-century developed Moorish style of stucco decoration is in the Alhambra at Granada. Arabesques and interlaced bands in numerous combinations are the principal motives of this intricate ornament that covers every inch of the walls. In other places, such as Cordova, Seville, Toledo, and Tlemcen in North Africa, we find numerous examples of stucco decoration. In the stucco ornament of Moorish Spain, during the fourteenth century and later, naturalistic European motives were occasionally introduced, as, for example, in the Synagogue of El Transito at Toledo.

Chapter VII. Woodwork

Early wood-carvings in Galleries D 3, E 14, and E 14 a; later examples in Gallery E 12. Turned woodwork (mashrabiya) not at present on exhibition

The Mohammedans of all countries made use of wood, often elaborately carved, for their domestic furniture, and for the mosque pulpit (*mimbar*) and the Koran-stands (*rahla*). Architectural details such as the prayer niches (mihrabs) of mosques, the ceilings, windows, doors, and wall friezes of mosques and palaces, and the casings of tombs were also of carved wood.

1. *Egyptian and Mesopotamian Wood-Carving from the VII to the IX Century*

The earliest carved-wood panels have been found in Egyptian graves of the eighth and ninth centuries. In design and technique they continue Coptic traditions.

In the Tulunid period a new type of ornament, entirely different from the floral motives of Coptic art, makes its appearance. This style came from Samarra in Mesopotamia (p. 79), where ninth-century examples of wood-carving have been found. These carved and painted wooden panels were parts of ceilings and doors, or decorative friezes of houses and palaces. The sloping cut of the carving and the ornament are analogous in style to the stucco wall decorations (fig. 35) at Samarra and at Cairo in the Mosque of Ibn Tulun. The finest Tulunid

wood-carvings, mostly parts of doors, are preserved in the Mosque of Ibn Tulun and in the Arab Museum at Cairo. Exemplifying the Tulunid style is a triangular panel in this Museum, decorated with the device of a heart-shaped palmette and two half-palmettes, originally painted white, yellow, red, and blue. The finest example of ninth-century Mesopotamian wood-carving is the prayer pulpit in the mosque at Kairwan in North Africa, which was imported from Bagdad. The ornamentation consists of geometrical interlacings in openwork, stylized palmette trees, and vine scrolls.

2. *Egyptian Wood-Carving of the Fatimid Period (X to XII Century)*

Wood-carving in Egypt during the Fatimid period reached a high level of perfection. The earliest known specimen of this period is the door of the Mosque of al-Azhar, now in the Arab Museum, bearing the name of the Caliph al-Hakim (996-1020). The door is composed of rectangular and triangular panels carved with arabesques of symmetrical composition. Two rectangular panels in our collection are decorated in similar fashion. By comparison with the door of the Mosque of al-Azhar, Herz-Pasha has identified as of the Fatimid period a number of carved-wood panels from the *maristan* of Kalaun and in the tomb mosque of Muhammad an-Nasir, the son of Kalaun. The panels were probably part of the original decorations removed from the western, or lesser, palace of the Fatimid caliphs, begun by Aziz (975-996) and completed by Mustansir (1035-1094). The beautiful friezes and rectangular panels are decorated with birds and animals, or with figure subjects such as hunters, dancers, revelers, or musicians within medallions — all on a background of floral scrolls or arabesques in lower relief than the figures. There are also genre scenes with subjects such as camels drinking, a groom lead-

ing a horse, and others clearly of secular origin. Another panel (fig. 38) in this Museum has a pattern of antelopes, flying eagles, and griffins on a background of floral scrolls with trefoils carved in flat relief. A beautiful example of Fatimid wood-carving is the door panel illustrated in figure 39. A door and a single panel, analogous in style, are in the Arab Museum. Our panel has a splendid arabesque design around a cen-

Fig. 38. Wooden Panel (Detail)
Egypto-Arabic, XI Century

tral device ending in two horses' heads. A strong contrast of light and dark is effected by heavily undercutting and working the relief in various levels. Other panels in our collection show arabesque patterns or birds and animals within scrolls.

Important monuments of the late Fatimid period are several prayer niches in the museum at Cairo. Among these is the prayer niche from the Mosque of Sitta Nefisa, decorated with beautiful arabesques and floral scrolls. The frame is composed of numerous small panels inclosed by angular interlacings. Another important mihrab in the Arab Museum came from the Chapel of Sitta Rukaya, and was made between 1155 and 1160, according to Van Berchem. The elaborate decoration consists of finely designed scrolls and arabesques.

3. *Egyptian Wood-Carving of the Ayyubid and Mamluk Periods (XI to XV Century)*

In the Ayyubid period, the Egyptian arabesque becomes more definite in form, and round Naskhi characters are used in inscriptions instead of angular Kufic letters. Important examples of Ayyubid wood-carving are the cenotaph from the tomb of the Imam ash-Shafii, dated A. H. 574 (1178); eight fragments of a cenotaph of the wife of Sultan al-Adil, dated A. H. 608 (1211); four sides of a cenotaph from a tomb of Amir Thalab, dated A. H. 613 (1216), of which three sides are in the Arab Museum, Cairo, and one in the Victoria and Albert Museum, London; and the carved panels and a door with inlaid wood of various colors from the tomb of Ayyub as-Salih, built in 1249.

Fig. 39. Carved-Wood Door Panel
Egypto-Arabic, XI Century

In the Mamluk period, during the thirteenth and fourteenth centuries, the style of the arabesque reached its highest point of development and the wood-carvers attained their greatest technical skill. New varieties of palmettes and combinations of arabesques were created. For the decoration of doors and pulpits, small panels of carved wood (fig. 40) framed by interlacing bands in geometrical patterns were employed. Sometimes, as we shall note

farther on, ivory was substituted for wood. The use of small panels which minimized the effects of warping had been known since the Coptic period. Several dated specimens of Mamluk wood-carving are in the Victoria and Albert Museum. Among them are panels from the pulpit erected in 1296 by Sultan Lagin in the Mosque of Ibn Tulun. The name of the sultan, his titles, and the date are seen on two horizontal panels. In the carvings from this pulpit the arabesque appears in the developed form characteristic of the Mamluk period.

Other dated examples in the same museum are the carved panels from a pulpit in the Mosque of al-Maridani, built in the year 1338. The arabesques of these panels are carved in two planes, like those in the Lagin pulpit, but are more delicate in workmanship. In the same collection are panels which probably come from a pulpit in the Mosque of Kusun, built about 1347.

The best specimens of Mamluk wood-carving, as seen in the Arab Museum at Cairo and in other museums, belong to the first half of the fourteenth century. The Metropolitan Museum has numerous panels of doors and pulpits that may be assigned to this period.

In the fifteenth century, some good wood-carving was done, but the best work is inferior to that of the earlier period. Although the use of ivory and other materials for inlay was more general, the art of carving had deteriorated and become mechanical.

4. *Egyptian Lattice-Work of Turned Wood*

A variety of woodwork popular in Egypt, probably from Coptic times, was the turned lattice-work that attained its highest perfection in the fourteenth and fifteenth centuries. Lattice-work screens of this kind were used to separate the sanctuary from the rest of the mosque, and, even more extensively, in the

windows of private houses. The window screen is called *mashrabiya,* or "drinking place," from the niche in which a porous jar (*kolla*) was placed to cool water through evaporation. By varying the arrangement of the turned balls and connecting links, the makers of lattice-work were enabled to produce a great variety of designs. Many examples may still be seen in

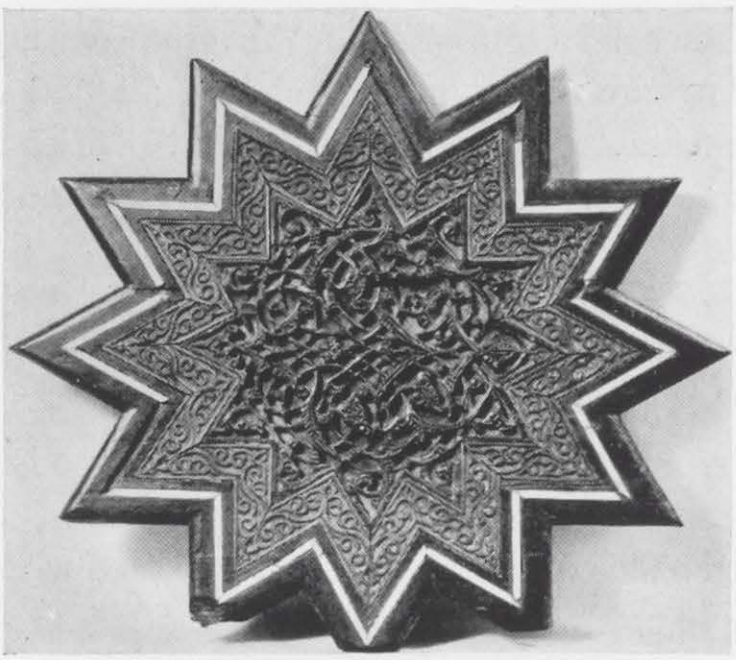


Fig. 40. Carved-Wood Panel
Egypto-Arabic, XIII-XIV Century

houses in Cairo, and in various museums, including the Metropolitan Museum.

5. *Wood-Carving of the Seljuks, Asia Minor (XII and XIII Centuries)*

The Seljuk Turks of Asia Minor were accomplished wood-carvers. Examples of their work, doors, pulpits, sarcophagi, and Koran-stands, richly decorated with geometrical patterns and arabesques, are preserved in mosques and in the museum at Konia and the Evkaf Museum. One specimen is the pulpit in the Mosque of Ala ad-Din in Konia, dated A. H. 550 (1155),

and decorated elaborately with arabesques whose circular leaves and palmettes end in "button" motives. The latter are especially prominent in the thirteenth-century Koran-stand in the museum at Constantinople. Of great beauty is a door in the same museum, decorated not only with the usual arabesques, but also with stylized lions, griffins, and human figures, which recall the contemporary ornament of Mosul and Bagdad. Other fine examples of thirteenth-century Seljuk wood-carving are coffins in the tomb of Sayyid Mahmud Hairani at Akshehr, a door in the Kaiser Friedrich Museum, and a door formerly in a mosque in Angora, but now in Constantinople.

6. *Wood-Carving of Persia, Western Turkestan, and Afghanistan*

A notable monument of early Mohammedan wood-carving is the door from the palace of Mahmud of Ghazni (998-1030), now in Agra. This important piece is decorated with graceful arabesques in openwork interlaced with bands. The arabesque forms show a resemblance to other Mohammedan wood-carvings, especially the *maksurah,* or loge, of the mosque at Kairwan, and certain Fatimid wood-carvings.

As few specimens of the early Mohammedan wood-carvings of Persia and western Turkestan are known, the Metropolitan Museum is fortunate in possessing a dated, fourteenth-century Koran-stand (fig. 41) that was made either in Persia or western Turkestan. It is elaborately and most skilfully carved with arabesques, floral ornaments, and inscriptions, in relief and openwork. Of great beauty are the plants with naturalistic leaves, bearing blossoms and palmettes of Chinese derivation. The effects of color obtained by deep undercutting or openwork carving are very interesting. In certain places, three patterns appear one over the other on different levels of relief.

Fig. 41. Carved-Wood Koran-Stand
From Persia or Western Turkestan
Dated 1360

The inscriptions give, besides the names of the twelve imams, the name of the carver, "Hasan, son of Sulaiman of Ispahan," and the date, "in the month Zu 'l-Hijjah 761" (October-November, 1360).

A few years later in date is the carved-wood casing of the tomb of Abu 'l-Ghassan, now in the Rhode Island School of Design at Providence. This masterly Persian wood-carving is decorated with geometrical and conventional floral devices recalling work from Cairo. According to the inscription, it was made to the order of Jalal ad-Din, of the Muzaffarid dynasty, in A. H. 777 (1375) by Ustad Ahmad ibn Ahmad.

In the fifteenth century, under the Timūrids, the wood-carving of western Turkestan achieved a high standard. Several very fine window frames and doors in the mausoleum of Timur at Samarkand are ornamented with naturalistic and conventional floral motives, carved in relief of various heights. Other important fifteenth-century doors are in the Mosque of Shah Zindah in Samarkand, and in the Madrasah Khasret Khoja Ahmad Jassawi in the city of Turkestan.

An excellent specimen of the Samarkand school of wood-carving is a door (fig. 42) from Kokand, Turkestan, in this Museum. The central panel is carved in deep relief with a beautiful pattern of arabesques interlaced with floral scrolls bearing large palmettes, and bordered by delicate floral scrolls and arabesques in low relief. Probably the door was originally painted, as traces of colors are still apparent — blue for the background, and red, green, brown, and gold for the pattern. Comparison of the door with dated monuments of the fifteenth century permits us to assign it to the same period.

Wood-carving continued to be practised both in Persia and western Turkestan in later periods. A door dated A. H. 999 (1590) in the Kaiser Friedrich Museum is decorated with floral ornament characteristic of the Safavid style. In the sev-

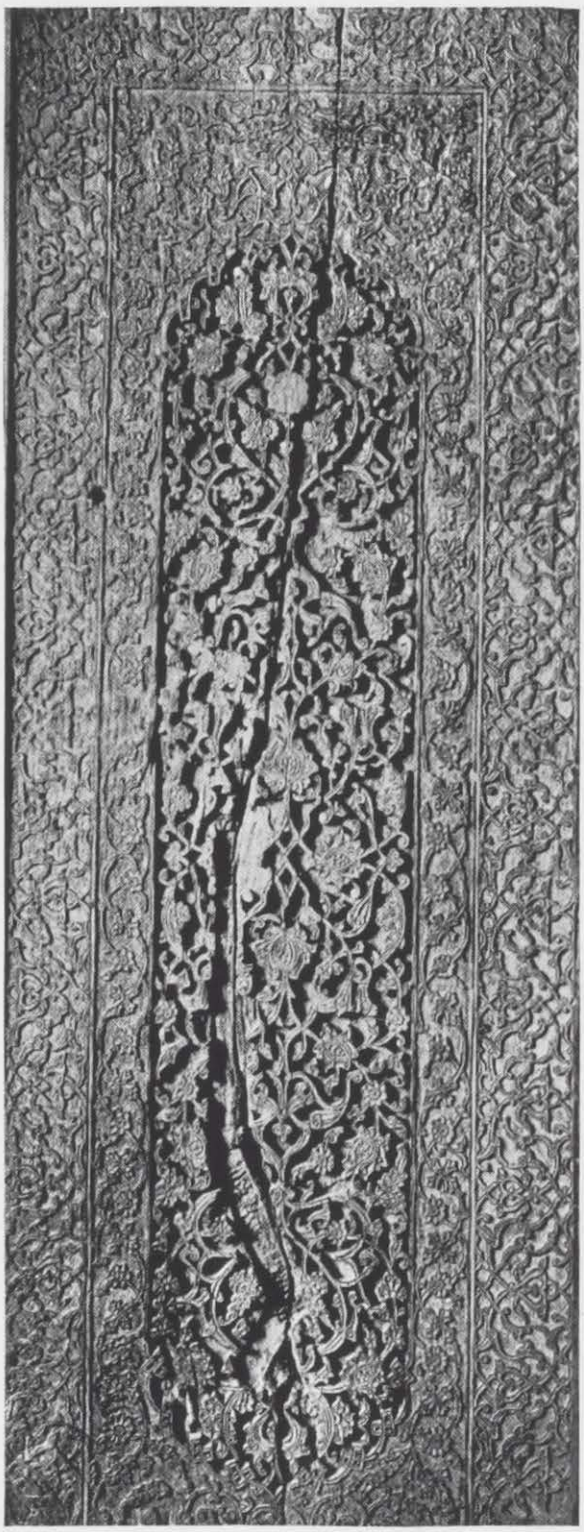


Fig. 42. Carved-Wood Door
From Turkestan, Samarkand
XV Century

enteenth and eighteenth centuries the art of wood-carving declined; frequently doors of this period are painted and lacquered instead of carved. A pair of such doors in this Museum, decorated with charming garden scenes (fig. 43), may be assigned to the seventeenth century.

7. *Indian Wood-Carving*

In India wood-carving was an ancient art that continued to flourish under the Mohammedan domination, but as existing specimens are Hindu rather than Mohammedan in character they do not come within the scope of this handbook.

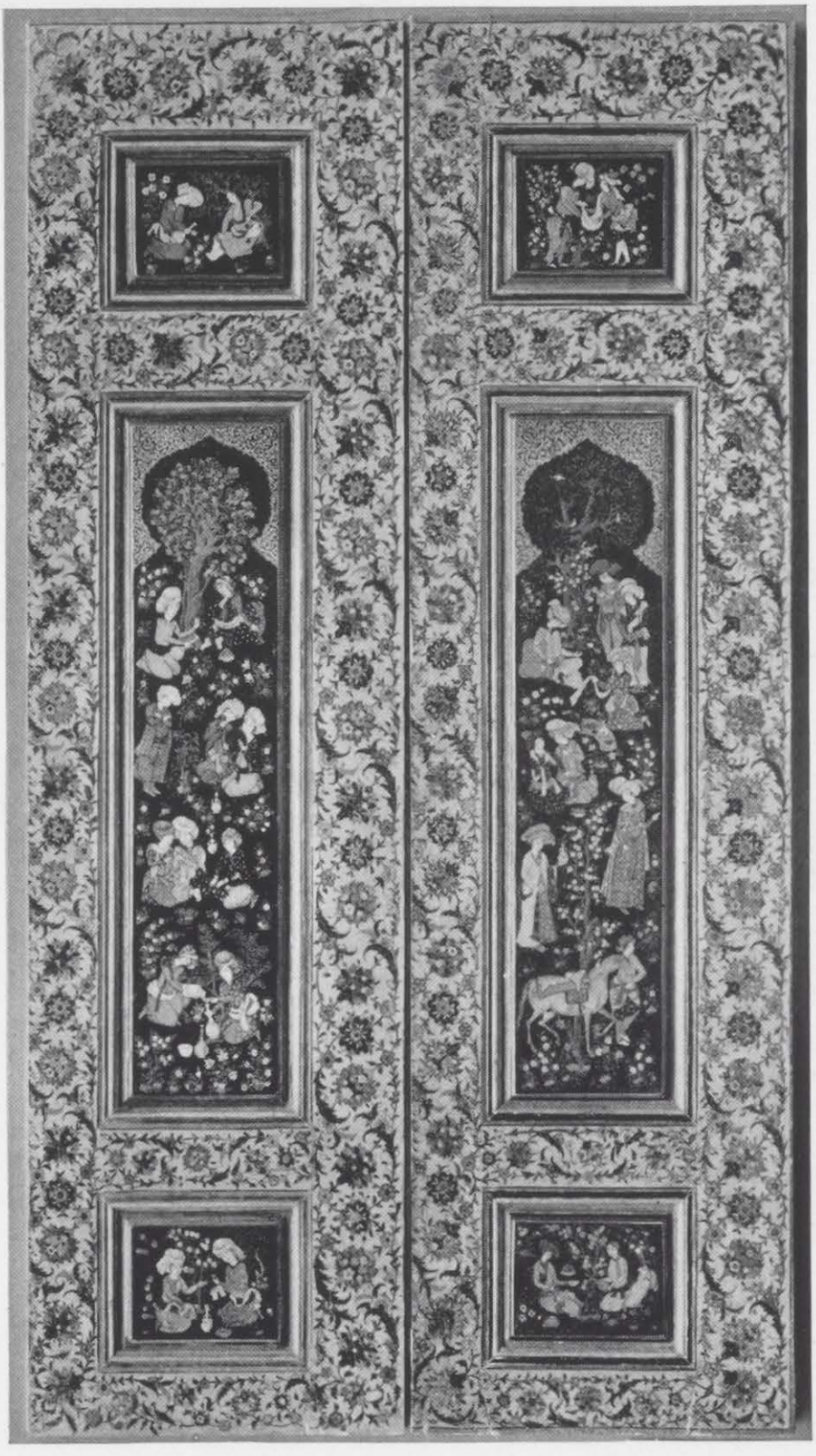


Fig. 43. Lacquered Doors
Persian, XVII Century

Chapter VIII. Ivory and Intarsia

Mainly in Galleries E 14 a and E 12; the door in the Moore Collection in Gallery H 10; pieces in the Morgan Collection in the Pierpont Morgan Wing; Hispano-Moresque and Sicilian examples in Gallery C 18

Boxes, oliphants, and other objects in ivory with carved or painted decoration show the skill of the Mohammedan craftsman in the use of this material. The art, long practised in Egypt, continued under the Arabs; and in the fourteenth and fifteenth centuries attained the proportions of a flourishing industry. Beautiful work in ivory was also done in Mesopotamia (an ivory chess piece in the Morgan Collection, attributed to the eighth century or later, is probably from this region). Spain, southern Italy, and Sicily were also important centers of Mohammedan ivory carving. Exquisitely carved ivory was produced in India under the Mughals; an excellent example in this Museum is the large hunting horn in the Morgan Collection.

1. *Egypto-Arabic Bone and Ivory Carvings*

Until recently, the early Mohammedan ivory carvings of Egypt were entirely unknown, but of late, excavations at Fustat have furnished us with several interesting specimens of the Tulunid and Fatimid periods. Two fragments in the Arab Museum, one Coptic in style, the other in the style of the

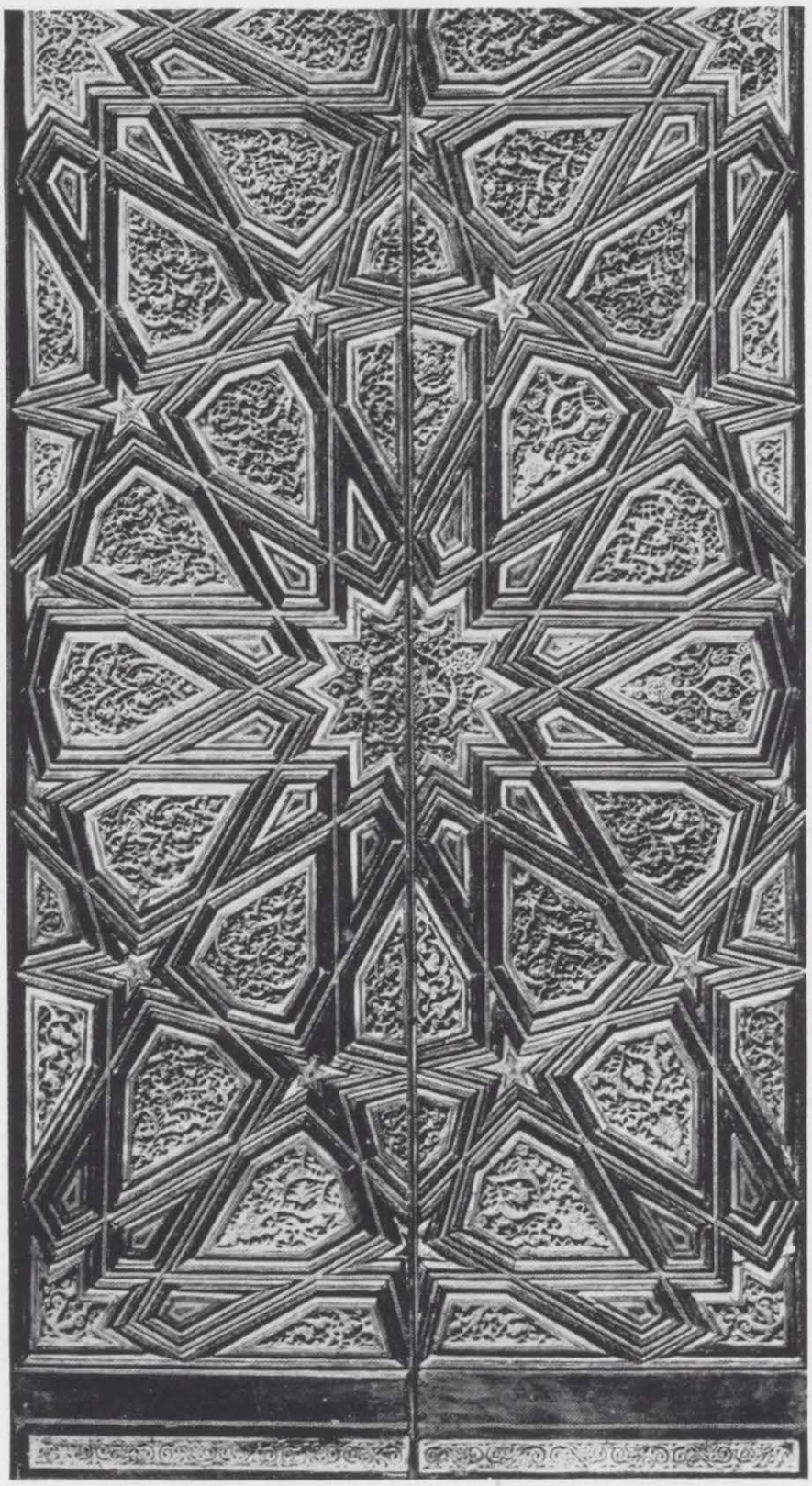


Fig. 44. Door with Ivory Panels (Detail)
Egypto-Arabic, XIII-XIV Century

Tulunid stuccos, may be assigned to the Tulunid period. Seven other fragments have figure and animal subjects on floral backgrounds that resemble wood-carvings of the Fatimid period.

In the Mamluk period, small ivory panels were used to ornament doors and pulpits in the same way as the wood panels described on page 89. The panels, framed by strips of wood, were arranged to form geometrical patterns. Specimens of such ivories may be seen in most of the larger museums. In addition to many single panels, this Museum possesses one

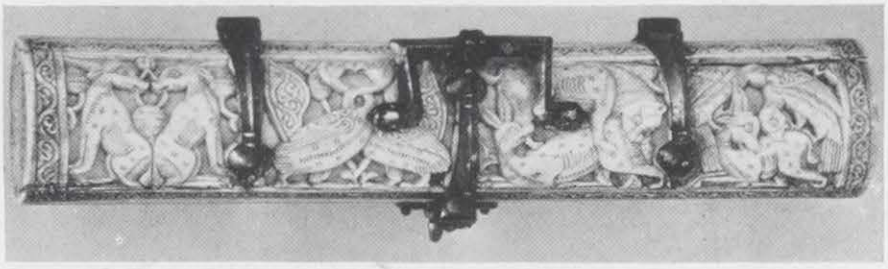


Fig. 45. Ivory Writing-Case
Probably South Italian, XI-XII Century

complete door (fig. 44) that may be assigned to the late thirteenth century or the early fourteenth. The ivory panels of this door are carved in two planes of relief with an intricate arabesque pattern. Doors and pulpits with inlaid ivory panels continued to be made in the fourteenth and fifteenth centuries.

2. *Oliphants and Caskets with Carved Decoration from Southern Italy and Spain*

Carved ivory oliphants and oblong caskets with pyramidal covers constitute a rare class of Mohammedan ivories that have been variously described as Egyptian, Mesopotamian, Sicilian, Hispano-Moresque, and South Italian. In the Morgan Collection are three such ivories — a fragment of an oliphant, a casket, and a writing-case. The casket (fig. 46) has

a decoration of hunters, beasts, and birds in medallions formed by interlaced vine scrolls; at the corners are standing bearded figures. Similar in style are the decorations of the writing-case (fig. 45) and the fragment of the oliphant. The former, which comes from the Oppenheim Collection, is carved with griffins, hares, antelopes, lions, and peacocks, represented singly or in combat. Pairs of peacocks with interlaced necks, such as those on the cover, are quite common in Spanish ivories, as is the

Fig. 46. Ivory Casket
Probably South Italian, XI-XII Century

repeated group of a lion attacking a deer. Some of the animals and birds represented on the oliphant are also familiar to us from Hispano-Moresque ivories. Although the Oriental character of the decoration is quite clear, a comparison with true Mohammedan work from Egypt, Syria, or Mesopotamia shows stylistic differences. A much closer similarity exists between the group exemplified by the Morgan ivories and the art of Moorish Spain or that of southern Italy in the eleventh and twelfth centuries, where the Normans, through the conquest of Sicily (1071), had introduced the Arabic art of their day. Kühnel has advanced excellent reasons for assigning this group of carved ivories to southern Italy, where many Mo-

hammedan artists were employed under the Norman kings. It is not improbable, however, that certain pieces were made in Spain.

3. *Hispano-Moresque Ivories*

Spanish ivories of the Mohammedan era may be divided into two groups. Those of the earlier or Omayyad period, of which many bear dates and the names of sultans of the tenth century, were made in Cordova. The later group, in which dated specimens also occur, was produced in the eleventh century, probably at Cuenca. The decoration in both groups consists of court and hunting scenes, animals and birds, and plants with characteristic feathery leaves. Important specimens of the tenth century are a pyxis, dated A. H. 357 (968), in the Louvre, and another, dated A. H. 359 (970), in the Victoria and Albert Museum. A casket of this period is in the Hispanic Society in New York.

In eleventh-century Hispano-Moresque ivories the relief is lower, and the palmettes become more conventionalized. Examples of this type are a casket, dated A. H. 395 (1005), in the cathedral of Pamplona; a casket, dated A. H. 417 (1026), at Burgos; and a casket, dated A. H. 441 (1049), from Palencia, now in the Archaeological Museum, Madrid.

4. *Ivories with Painted Decoration Attributed to Sicily*

Of Mohammedan origin, also, is a group of ivory boxes with painted instead of carved decoration. The designs on these ivories comprise arabesques in medallions, hunters, animals, and birds — especially peacocks — painted in brown outlines, sometimes with the addition of blue, green, and gold. The famous casket at Würzburg is decorated with large figures which represent a sultan entertained by musicians. Christian sub-

jects also occur — for example, on a casket in the Cappella Palatina in Palermo. A pyxis in this Museum is painted with a lion, floral scrolls, and palmette trees. For some time these ivories were regarded as Syrian or Mesopotamian, but it is now believed that they were made by Mohammedan craftsmen in Sicily, probably in the thirteenth century.

Of a later period, possibly the fourteenth century, is another box in this Museum. On this piece, a dragon, a centaur, a dog, and a lion, combined with scrollwork, are painted in brown with touches of red, gold, and black. The style is partly Oriental, partly European.

5. *Intarsia*

The art of inlaying wood with small pieces of ivory, bone, or colored wood was practised in Egypt during the Coptic period, and continued in favor under the Mohammedans. The earliest examples are those of the Tulunid period in the Arab Museum. An interesting specimen of the ninth or tenth century is a Koran cover of wood inlaid with ivory and wood, now in the Kaiser Friedrich Museum. The designs of these mosaics are usually geometrical, but occasionally palmettes and birds appear. Several very fine tables, boxes, and doors of the fifteenth century are in the Arab Museum in Cairo.

In Spain and Sicily, also, inlay work of this kind was produced. A thirteenth-century wooden box in the Cappella Palatina in Palermo has a rich decoration of ivory inlay.

Intarsia inlay is still being made in Mohammedan countries. Mother-of-pearl is sometimes combined with wood, bone, and ivory for this work, and many pieces of modern furniture from Egypt and Syria are so decorated.

Chapter IX. Metalwork

Mainly in Galleries E 14, E 12 a, and H 10
(Moore Collection)

From remote antiquity the Orientals have been skilful metalworkers. Besides the casting, cutting, and engraving of metals the Mohammedan craftsmen were familiar with the process of inlaying with various polychrome stones and metals. A bronze figure of a bull of about 2000 B. C. in the Louvre, found in southern Mesopotamia, is inlaid with irregularly shaped silver plaques. Gold and silver inlay was also known to the ancient Egyptians. Persian metalwork of the Achaemenid period (550-331 B. C.) shows various methods of decoration. Other masters of metalwork were the Iranian nomads who introduced to the Teutonic tribes of Europe the art of stone inlay in gold.

The great revival of Persian art under the Sasanid dynasty is especially noticeable in the metalwork of the period, which consisted mainly of gold and silver plates and vessels. Small decorative plaques and ornaments of silver and lead are also known. The Museum has three examples of Sasanian applied ornament in lead, two of which show men on horseback, the third, a donkey.

1. *Gold, Silver, and Enamel Work*

The use of gold and silver for the manufacture of vessels continued in Mohammedan times, especially in Persia and western Turkestan. The majority of the known examples of such

vessels are now in Russian collections. A silver plate in Leningrad has a representation of the goddess Anahit, entirely Sasanian in style. According to an inscription in Pahlavi this plate was in the possession of a prince of Gilan in northern Persia in 730. Other vessels found in Central Asia and the Caucasus are decorated in relief or engraved with arabesques, animals, and birds. Frequently they bear Kufic inscriptions dating from the eleventh to the thirteenth century. A silver plate in the Hermitage has an engraved decoration representing a sultan on his throne with two attendants, a subject familiar in Rhages polychrome ware. A Persian silver jug of the thirteenth century with a relief decoration of birds and animals is in the Kaiser Friedrich Museum.

Specimens of Moorish goldsmith work have been preserved in the treasuries of Spanish cathedrals. Most famous among them is the silver-gilt box in the cathedral of Gerona. It has a relief decoration of arabesque scrolls with palmettes, similar in style to other Moorish work of the tenth and eleventh centuries. An inscription tells us that the box was made on the order of Caliph al-Hakim II (961-976) for his successor, Hisham II, by Juden ibn Botsla.

Of Near Eastern, probably Iranian, origin is the art of stone and enamel inlay. A small medallion, of the tenth or eleventh century, with a colored enamel decoration was found at Fustat, and is in the Arab Museum at Cairo. The most magnificent example of Mohammedan enamel work, however, is a plate in the Innsbruck Museum. In the center is the representation of a sovereign seated in a chariot, bordered by medallions containing birds and animals on a background of scrolls. It is inscribed with the name of the Ortukid sultan, Rukn ad-Daula Dawud (1108-1148) of Kaifa and Diarbakr in northern Mesopotamia.

There are only a few early examples of Mohammedan

jewelry known. Most of the specimens still extant, consisting of bracelets, ear-rings, and buckles, date from the eighteenth to the twentieth century.[1] Of the early specimens this Museum has a Persian ear-ring in the shape of a bird worked in gold filigree. It was found at Rhages, and may be assigned to the twelfth or thirteenth century. A gold buckle with pairs of griffins in the Kaiser Friedrich Museum is probably of the same period.

Fig. 47. Gold Signet Ring
Persian, XV Century

Later in date, probably of the fifteenth century, is a signet ring (fig. 47) elaborately decorated with two serpent-heads, arābesques, and floral motives, and inscribed with good wishes in Arabic and Persian.

2. *Bronzes with Engraved and Relief Decoration*

Engraving is the simplest method of decorating metal. Thus ornamented is a series of Egypto-Arabic bronze animal figures in the round, which were used for fountains, incense burners, and other purposes. They may be assigned to the Fatimid period. A remarkable specimen is the large griffin in the Campo Santo at Pisa, with an elaborate engraved design. Several other interesting examples are in the Louvre.

Engraved designs were also applied to bronze vessels such as the mortars, kettles, bowls, candlesticks, and incense burners found in Egypt, Persia, and western Turkestan. This Museum possesses several bronzes with engraved designs, some of which are said to have been found at Hamadan in Persia. A fine specimen of engraved work may be seen on the round

[1] This class of material is well exemplified in the Moore Collection.

bronze mortar illustrated in figure 48. The piece is similar in style to other bronze and copper vessels found at Hamadan, which date from the twelfth and thirteenth centuries. Octagonal bronze mortars with engraved decoration were probably made also in Khorasan and western Turkestan.

Another group of Persian bronzes of the twelfth century is composed of incense burners of various shapes. Two interest-

Fig. 48. Bronze Mortar
Persian, XII Century

ing bronze incense dishes of this type are in our collection. One has three feet in the shape of bulls, and is decorated with a sphinx and Kufic inscriptions. The other dish has three feet in the shape of stylized lions, similar to those which occur on other Persian specimens of the period. The surface of our dish is covered with a layer of silver alloy, an Iranian technique very rare in the Mohammedan period. The decoration of the interior consists of the figures of an enthroned sultan and his attendants, surrounded by twelve medallions framing signs of the zodiac. The rim is decorated with a row of animals, and the exterior, with a Naskhi inscription with letters ending in human heads. The style of the design indicates a twelfth-century origin. Another type of Persian incense burn-

er is perforated and engraved with interlacings and arabesques. In our collection is the top of such an incense burner, decorated with arabesques in openwork.

The art of casting bronze objects, such as mirrors, door knockers, and animal figures, was known both in Persia and in Mesopotamia at an early period. An important Mesopotamian specimen is a mirror in the collection of Count Wallerstein, decorated with the signs of the zodiac and inscribed with the name of Ortuk Shah of the Ortukid dynasty of Maridin, who reigned probably at the end of the thirteenth century. To Mesopotamia or Persia are attributed small mirrors ornamented in relief with adorsed sphinxes and Arabic inscriptions expressing good wishes (fig. 49). Also of Persian origin are several large mirrors with a decoration of figure subjects and animals.

3. *Metalwork with Silver and Copper Inlay*

Silver-inlaid metal objects of the Mohammedan period are mostly of brass, an alloy of copper and zinc, resembling gold in color. This Museum is fortunate in possessing a large and important collection of such metalwork dating from the twelfth through the sixteenth century. Fifty-five pieces form part of the Edward C. Moore Bequest. This is the only collection of metalwork which is comparable in size and quality with that of the Arab Museum at Cairo.

Archaeological and historical evidence make it seem probable that the revival of the inlay technique began in Persia and western Turkestan at the end of the Sasanian period, and was later carried westward by the Turkish Seljuks. To the late Sasanian period may be attributed two ewers, one in the Martin Collection, the other formerly in the Polovtzov Collection; both are decorated with floral designs in relief and copper inlay. An important piece which may be attributed to the early

Mohammedan period (eighth or ninth century) is a ewer, formerly in the Bobrinsky Collection in Leningrad, decorated with peacocks beside a palmette tree. It is in low relief with engraved details and is enriched with copper inlay.

A. Persian Metalwork of the XII and XIII Centuries

In the second half of the twelfth century the art of metal inlay was highly developed in western and eastern Persia. An excellent example of this period is the kettle in the Leningrad Museum dated A. H. 559 (1163), made in Herat by Muhammad ibn Abd al-Wahid and inlaid by Hajib Masud ibn Ahmad. The shape is identical with other Persian kettles with engraved designs found at Hamadan. The decoration of this piece in silver and copper inlay consists of horizontal bands of musicians, dancers, revelers, and hunters, separated by inscriptions. Another dated twelfth-century piece is in the Louvre; it is a ewer with engraved and copper-inlaid decoration, bearing the name of the owner Othman, son of Sulaiman of Nakhitchevan (Armenia), and the date A. H. 586 (1190).

Fig. 49. Bronze Mirror
Mesopotamian or Persian
XII Century

To northern Persia and Armenia are attributed duodecagonal and fluted ewers with engraved ornament and silver and copper inlay. The body is frequently crowned by a row of birds in high relief, the projecting heads being worked in the round. On the neck are figures of lions also in high relief. A few such ewers may be assigned to the twelfth century but most of them are of the thirteenth. An interesting specimen of

the latter group is a fluted ewer lent to the Museum by J. Pierpont Morgan. A late thirteenth-century ewer of the same type, originally inlaid with silver, is illustrated in figure 50.

Fig. 50. Brass Ewer
Persian, Late XIII Century

B. Mosul Metalwork of the XIII Century

In Arghana Maaden and Maaden Khapur there are rich copper mines which supplied Mesopotamia and Syria with the necessary ore for the manufacture of brass and bronze objects. The most important place in the manufacture of silver-inlaid metalwork during the thirteenth century was Mosul in Mesopotamia. At this time Mosul was in the hands of the Atabegs of the Zangid dynasty, who protected and encouraged the development of arts and crafts and were especially fond of metalwork. Syrian cities such as Damascus and Aleppo also manufactured metalwork.

The silver-inlaid metalwork comprises a great variety of objects, such as candlesticks, small and large basins for ritual purposes, ewers, boxes, writing-cases, mortars, and incense burners. They are decorated with figure subjects, animals, birds, fish, arabesques, interlacings, and Arabic inscriptions. Among the favorite representations are hunting scenes and

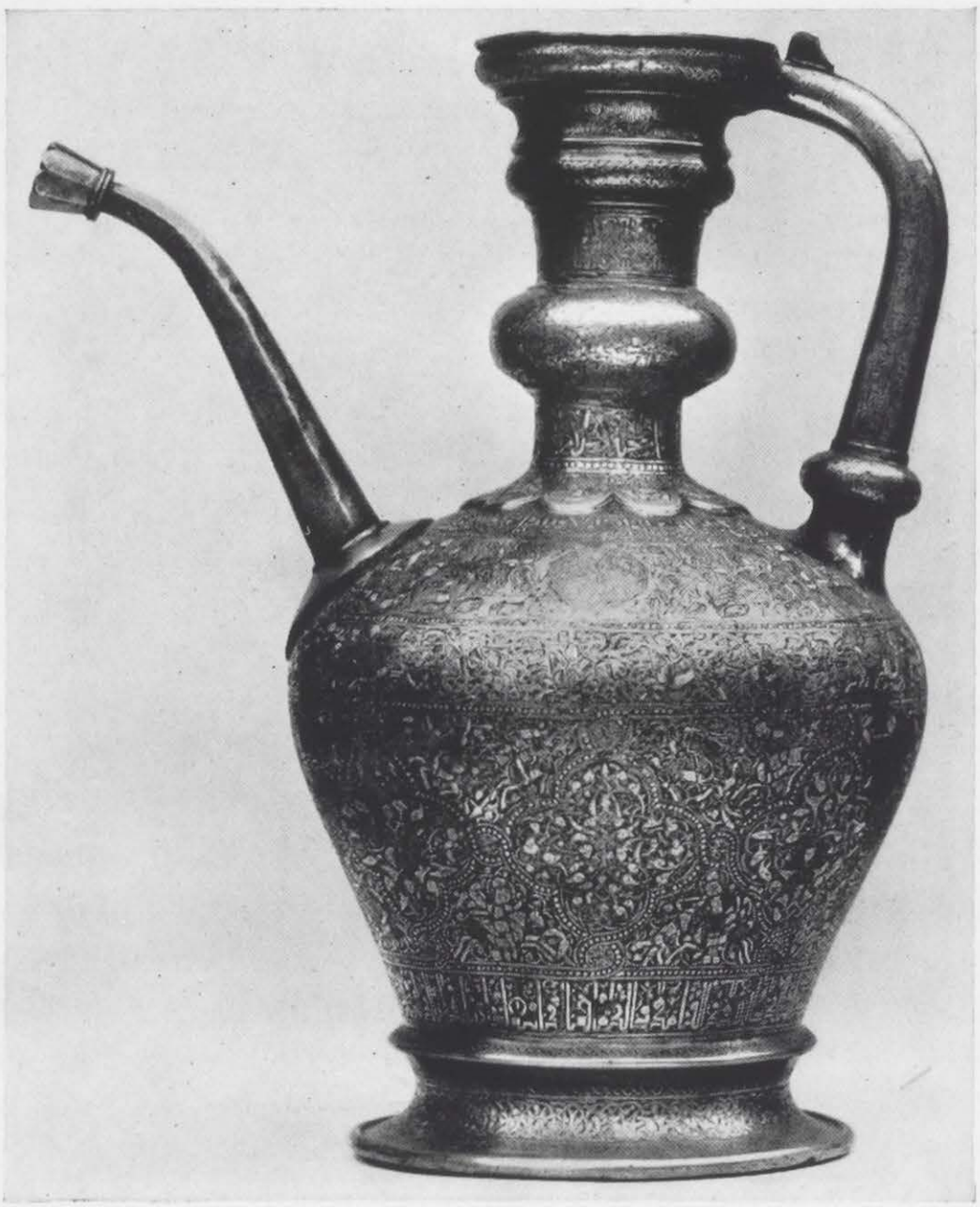


Fig. 51. Brass Ewer with Silver Inlay
Mesopotamian, Mosul, Dated 1226/27

episodes from the court life of sultans and nobles. Other popular motives are signs of the zodiac and symbols of the planets. In addition to these motives we find sphinxes, griffins, and birds with human heads, which are of Persian origin. The inscriptions are usually glorifications of the sultans or expressions of good wishes, but sometimes they give the name of the owner, the maker, and the place of manufacture.

A characteristic silver-inlaid brass ewer of the early thirteenth century is seen in figure 51. The surface is elaborately ornamented with figures and geometrical patterns and inscriptions in horizontal bands. The figure subjects, representing musicians performing before a prince and men filling wine cups from a vat, are of great interest. An inscription relates that the piece was made by an engraver of Mosul in the year A. H. 623 (1226/27). The sketchy drawing is characteristic of early thirteenth-century Mosul ware.

One of the finest specimens known of Mosul ware is the candlestick illustrated in figure 52. Unfortunately, the neck is missing. The decoration consists of four large medallions with scenes from the life of a sultan, and of twelve smaller medallions decorated with the signs of the zodiac and the symbols of the planets. The charming border designs depict in scenes of festivity the gay life of a sultan's court. We notice animated groups of men and women drinking wine from cups or beakers while others are playing cymbals, lutes, and harps, to the strains of which girls are dancing. Several faces, especially those of old bearded men, are excellent character studies. The two bands at the top and bottom between the mouldings are also of interest. Here the artist has represented all kinds of animals, water-fowl, and fantastic figures of birds and griffins ingeniously combined with scrolls. It is certain that a piece like this belonged to a man of high rank, but there is no inscription to indicate the ownership, although a suggestion lies

in sixteen small circular medallions each of which represents a personification of the moon. This is probably the badge of the Sultan Badr ad-Din Lulu (1233-1259) of Mosul, whose name meant "full-moon of religion." The same figure appears

Fig. 52. Base of a Brass Candlestick with Silver Inlay
Mesopotamian, Mosul, XIII Century

on his coins and on one of the Mosul gates, Bab Sinjar. Similar in style to our candlestick are other known metal objects inscribed with the name of Badr ad-Din Lulu.

C. Syrian and Egyptian Silver-inlaid Metalwork of the XIII Century

The style of Mosul spread to the neighboring countries of Syria and Egypt. The Louvre possesses a very fine basin bear-

ing the name of Malik al-Adil Abu Bakr II, Ayyubid sultan of Egypt and Damascus (1238-1240), which is probably of Syrian origin. A brass ewer dated A. H. 657 (1259), also in the Louvre, was made at Damascus. Christian subjects occur on a few pieces of metalwork probably Syrian in origin and intended as gifts from sultans to Christian patriarchs and princes. A famous piece of this kind is the basin in Brussels, belonging to the Duke of Arenberg. It is inscribed with the name of the Ayyubid sultan, Malik Salih Najm ad-Din (1240-1249). Another noteworthy piece with Christian scenes is the candlestick in the Musée des Arts Décoratifs in Paris that bears the name of the maker, Dawúd, son of Salama of Mosul, and the date A. H. 646 (1248). There is also evidence that silver-inlaid metalwork was made in Cairo in the thirteenth century. We may instance an inscribed basin in the Louvre, which was made at Cairo in 1285.

D. Metalwork with the Names of the Rasulid Sultans of Yemen (XIII and XIV Centuries)

Many silver-inlaid objects such as trays, braziers, and candlesticks were made in Cairo for the Rasulid sultans of Yemen. Two large trays of this kind, in our collection, bear the name of Sultan Muayyad Dawud ibn Yusuf (1297-1321); one of them was made in Cairo by Husain ibn Ahmad ibn Husain of Mosul. Another inscribed piece, a ewer in the Musée des Arts Décoratifs in Paris, was made in Cairo by Ali, son of Husain, son of Muhammad of Mosul, in the year 1275.

An exceptionally fine specimen of this class of metalwork is the silver-inlaid brazier in our collection, illustrated in figure 53. The five-petaled rosette, which appears in the decoration, is probably the badge of the Rasulid sultans of Yemen, as it occurs on all objects inscribed with names of these sovereigns. The brazier is inscribed with the name of the Sultan

al-Malik al-Muzaffar Yusuf. There were two sultans named Muzaffar Yusuf; one held power from 1249 to 1295, the other ruled from 1441 to 1446. It is quite certain that the inscription on our brazier refers to the earlier sultan, as the piece accords in style with the thirteenth-century metalwork of Syria and Mesopotamia.

E. Syrian and Egyptian Silver-inlaid Metalwork of the Mamluk Period (XIII to XV Century)

Under the rule of the Mamluk sultans of Syria and Egypt, the art of metalwork was highly developed. Although the craft was practised during this period in such Syrian cities as Damascus and Aleppo, the chief center was Cairo, where the work was carried on first by artists imported from Mosul and later by native craftsmen. Several pieces in our collection are inscribed with the name of the Bahri Mamluk, Nasir ad-Din Muhammad ibn Kalaun (who reigned three times, 1293-1294, 1299-1309, and 1310-1340), or with the names of his courtiers. The ewer illustrated in figure 54, made by order of this sovereign, whose name it bears, is a typical example of the richly ornamented metalwork of the Mamluk period.

Unlike the inlaid metalwork of Mosul, that of Cairo rarely introduces the human figure in its ornamentation. Very seldom is the name of a Mamluk sultan found on any piece with figure subjects. A characteristic example of Mamluk work is a ewer (fig. 54) in our collection, inscribed with the name of Sultan Nasir Muhammad. Its floral decoration is different from that of Mosul work; it is semi-naturalistic rather than stylized, and partly derived from Chinese sources. Similar ornament occurs on Syrian enameled glass and Persian ceramics of the fourteenth century.

The perfection of Mamluk inlay, both in technique and design, is seen in a beautiful writing-case in our collection. Ex-

quisitely inlaid with gold and silver, an intricate design covers every inch of the exterior and interior of the case with medallions, lozenge diapers, key patterns, arabesques, interlacings, and other familiar motives. Similar in style is an incense burner in our collection inscribed with royal titles.

Fig. 53. Brass Brazier with Silver Inlay
Egyptian or Syrian, XIII Century

The best period of the Mamluk inlay work is the fourteenth century, although good work was still done in the fifteenth century. Makrizi, writing about 1420, makes the following comment: "The demand for... inlaid copper [brass] work has fallen off in our time [in Cairo], and since many years the people have turned away from purchasing, . . . so that but a small remnant of the workers of inlay survive in this market."[2] There are several objects known which bear the name of the Mamluk Sultan Kait-Bey (1468-1495). A remarkable piece is

[2] Lane-Poole, *Art of the Saracens in Egypt*, pp. 166 and 167.

Fig. 54. Brass Ewer with Silver Inlay
Egyptian or Syrian, about 1300

the basin in Constantinople, decorated with geometrical interlacings, arabesques, and foliated scrolls. The Metropolitan possesses a large, flat circular bowl inscribed with the name of the same sultan.

Fig. 55. Brass Candlestick
Persian, Dated 1578/79

F. Persian Silver-inlaid Metalwork of the XIV Century

That the art of silver inlay was practised in Persia in the fourteenth century may surely be assumed, but as the art of nearly all Mohammedan countries in this period was very much alike, it is not an easy matter on the evidence of style alone to segregate Persian metalwork of this time. This Museum possesses a large basin with an elaborate silver inlay (fig. 56) that may perhaps be attributed to Persia. The inside of the bowl is decorated with concentric rows of compartments framing standing figures holding wine cups, bows, and swords; seated musicians and revelers; hunters and enthroned princes; pairs of aureoled sphinxes and griffins; and naturalistic plants. The Mongolian costumes and the naturalistic drawing of the plants suggest a Persian origin. The general style of the decoration permits the bowl to be dated in the fourteenth century.

G. Persian Metalwork from the XV to the XVIII Century

In this period the art of inlaying metals with silver or gold was still practised in Persia, but played a less important rôle than in previous centuries. Brass, copper, and iron are the metals usually employed, and the decoration reflects the

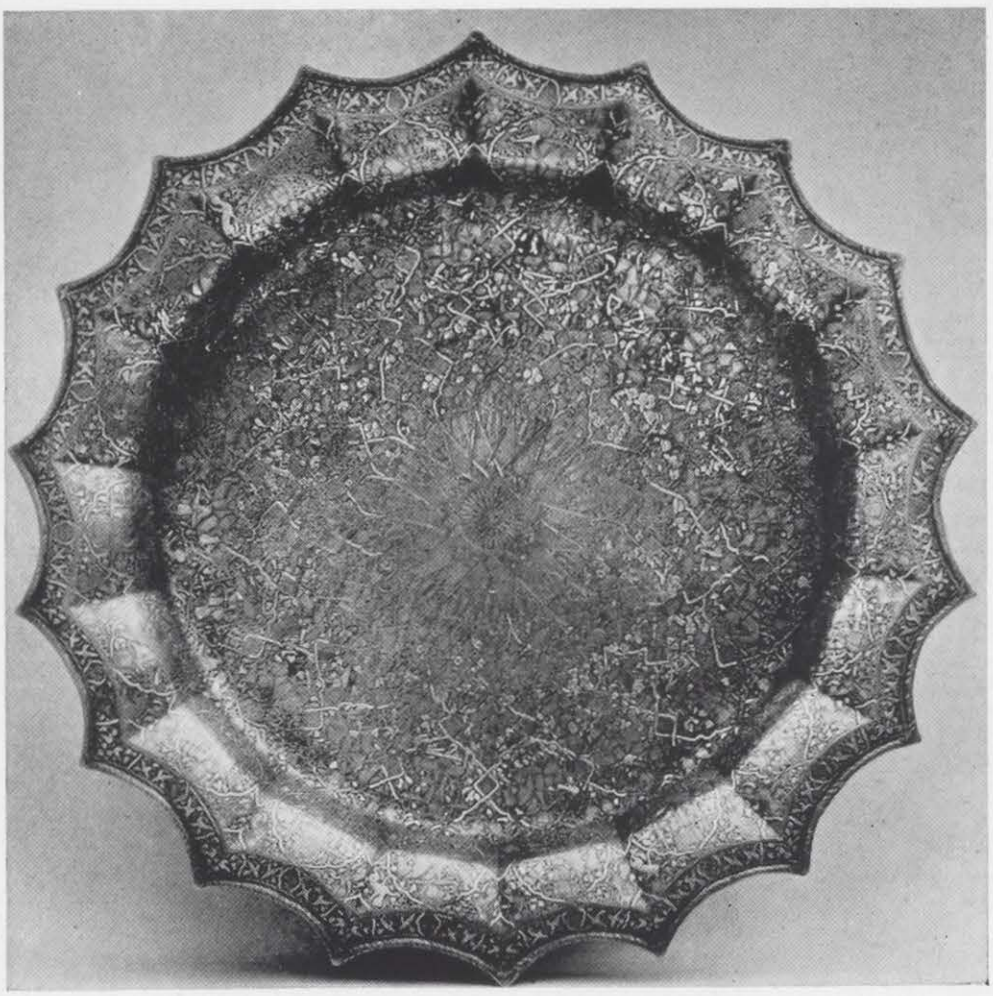


Fig. 56. Brass Basin with Silver Inlay
Probably Persian, XIV Century

changing fashions of the time. A typical example of the sixteenth century is a copper bowl in the Moore Collection. It is inscribed with the name of the maker, Imami from Aleppo, the guild-master, and the year A. H. 942 (1535/36). Another bowl in our collection is decorated with animals, floral scrolls,

and arabesques, and bears the date A. H. 1010 (1601/02) and the name of the owner, Mahmud Khan.

Brass candlesticks with engraved and relief decoration are common. One in our collection is dated A. H. 986 (1578/79) (fig. 55). The inscriptions on such candlesticks are usually taken from the Persian poem, "The Moth and the Candle." The decoration consists of arabesques and floral scrolls covering the whole surface or, more rarely, confined in compartments.

Persian metalwork of the late seventeenth and the eighteenth century retained the conventional decorative schemes with which we are already familiar. A similar style of decoration spread to Turkestan, where it is still practised, but the modern work is inferior in technique and design to the earlier productions.

4. *Venetian Metalwork in the XV and XVI Centuries*

Metalwork in the style of the Near East, particularly that of Syria, was produced in Italy in the fifteenth and sixteenth centuries. Venice was the principal center for work of this kind, which was carried on first by craftsmen from Syria and other Oriental countries and subsequently by native artists who called themselves *all' Agemina,* that is, workers "in the Persian style." Venetian metalwork, however, has a distinctive character that is easily recognized. There is a tendency toward confusion and roundness of forms in the arabesques and interlacings that does not occur in true Oriental work. Arabic inscriptions are usually omitted, although signed pieces are known. Several trays and bowls bear the name of Mahmud al-Kurdi. Coats of arms occur occasionally as well as European decorative motives. Of this Italian metalwork in the Oriental style, the Museum possesses several good examples in the Moore Collection.

5. *Spanish and North African Metalwork*

We have already had occasion to speak of the Moorish work in gold and silver preserved in the Spanish cathedrals. Like the metalworkers of Egypt in the Fatimid period, the Moors knew how to cast bronze figures of animals. One of the best-known specimens is the tenth-century horse from Medinat ez-Zahra. Another piece, a bronze lion found near Valencia, may be dated from about the twelfth century.

The lamp from the Alhambra Mosque is noteworthy among the later bronzes. It was made to order for Muhammad III in the year 1305 and has an openwork decoration of arabesques and Arabic inscriptions. Of Moorish workmanship are several bronze doors, of which one in the Cordova Cathedral bears the date 1415 of the era of Caesar (1377). The bronze door of the cathedral at Seville is similar in style.

In North Africa, the art of metalwork never achieved a high standard. Inlay, if not entirely unknown, was at least very rare. Such metalwork as we know is mostly of later date and decorated in the usual Moorish style. In our collection is a large copper jar, decorated with arabesques, interlacings, and inscriptions in medallions on a cross-hatched ground. The decorative scheme and motives recall the Moorish monuments of North Africa, where our jar was probably made in the sixteenth century.

6. *Indian Metalwork*

As this handbook is restricted to Mohammedan art, we have no occasion to speak of the remarkable work done by the Indian metalworkers before the Mohammedan conquest. During the Mughal supremacy the use of brass and other alloys for domestic and ritual vessels was continued by Indian craftsmen, who frequently incrusted the vessels with silver and gold. Jewelry, which was extensively worn in India, was made

of gold and silver, often with enameled enrichment. There is a notable collection of such jewelry in this Museum.

7. *Arms and Armor*

In the Moore Collection (H 10) are several specimens of Near Eastern arms. Of special importance are a seventeenth-century Persian helmet and a cuirass of steel inlaid with gold. Other fine pieces are exhibited in the galleries of the Department of Arms and Armor. Among the exhibits may be seen helmets, shields, cuirasses, swords, and daggers of Persia, India, and Turkey.[3]

[3] Bashford Dean, *Handbook of Arms and Armor*, pp. 252-264.

Chapter X. Ceramics

Ceramics earlier than the XV century generally in Galleries E 14, E 14A, and H 10 (Moore Collection); later specimens in E 12 and H 10. Near Eastern ceramics in the Altman Collection in Gallery K 33; Hispano-Moresque wares in Galleries K 29 and H 10

1. *The Origins*

The earliest ceramic art of the Mohammedan East continued the traditions of Parthian and Sasanian pottery, both glazed and unglazed, in which Oriental and Roman elements coexist. Of the rare Sasanian pottery we are fortunate in possessing a large group of specimens in brick red clay, decorated with figure subjects in relief (fig. 57), that were found in the vicinity of Teheran. These pieces, which date probably from the third or fourth century of our era, are unglazed with one exception, a vase covered with blue enamel.

The art of glazing was practised very early in ancient Egypt and in Mesopotamia. Green lead glazes were known in the Oriental provinces of the Roman Empire and in Parthian Mesopotamia and Persia during the first centuries of the Christian era. A Parthian vase with a blue-green glaze in this Museum has a linear ornament of wavy lines that may be traced back to the prehistoric period of the Near East.

2. *Persian Pottery from the VIII to the XI Century*

Persian pottery from the eighth to the eleventh century (often described commercially as "Guebri"[1] ware) has been excavated at Susa, Hamadan, Zenjan, Amol, Rhages (Rai), Kermanshah, and elsewhere. The important material found at Susa is similar to that from Samarra, to be discussed farther on (p. 151). From Rhages come numerous bowls and plates of red earthenware with an incised decoration in brown under a transparent lead glaze of creamy yellow and with a green band around the rim. The outside of this pottery is only partly glazed. The decoration, showing Sasanian influence, consists of conventionalized animals, birds, palmettes, geometrical designs, and inscriptions. An excellent example is a bowl in this Museum decorated by an incised design with a peacock motive. The resemblance of the ornament on this type of pottery to that on Sasanian metalwork led at first to the belief that the pottery might be of the same period, but a later origin has since been established by the presence of Kufic inscriptions on several specimens of similarly ornamented metalwork from Turkestan and the Caucasus. Characteristic of this post-Sasanian style is the graffito and painted decoration on a plate (fig. 58) in our collection. The bird motives represent a survival of Sasanian traditions, and an attribution to the eighth or ninth century is clearly suggested by many stylistic and technical details.

Fig. 57. Vase, Sasanian
III-IV Century

[1] Fire-worshiper.

Most of the early Mohammedan pottery of Persia has been found at Hamadan and Zenjan. It is ornamented with designs engraved through a white slip. The lead glaze is either green or creamy yellow with the addition of green and brown. The bowl illustrated in figure 59 is probably one of the earliest specimens of the Hamadan-Zenjan groups; the leopard is drawn in the best tradition of Sasanian art. Of the same type and period is a green-glazed cover with the conventionalized figure of an eagle. Stylized floral and geometrical motives also occur in the decoration of the Hamadan-Zenjan ware. A later specimen of the Hamadan-Zenjan pottery, dating from the tenth or eleventh century, is represented by the dish in figure 60. The engraved design consists of an equestrian hunter in yellow and brown. Such subjects are familiar from Sasanian silver dishes, and enjoyed a great popularity in all periods of Oriental art.

Fig. 58. Plate, Persian, Hamadan-Zenjan, VIII-IX Century

Chinese glazed pottery of the T'ang period (618-906), streaked and splashed with yellow and green, was imitated in Persia, Mesopotamia, and Egypt; and Chinese influence, strongly evident in the ninth century, played an important part thereafter in the development of Mohammedan ceramic art. The imitation of Chinese ware was not confined to color schemes but extended to ornament. Most of the Persian wares in the T'ang style, sometimes called Sino-Iranian, have been found at Susa. The plate in figure 61 shows a traditional Sa-

sanian pattern of intersecting circles combined with conventional lotus flowers of Chinese origin. Unlike T'ang pottery, the plate in figure 61 is not of stoneware but of softer earthenware similar to the other early Persian ceramics described above.

At Amol, Rhages, Zenjan, and other places there has been found an interesting type of pottery with boldly painted decoration on a white slip under a transparent creamy glaze (fig. 62). The ornament consists of birds, animals, Kufic letters, and flower and leaf forms in olive green, white, purple, brown, and orange red. This type of pottery may be assigned to the ninth or tenth century.

Fig. 59. Bowl, Persian Hamadan-Zenjan, VIII-IX Century

From Kermanshah and Amol comes a group of pottery of the same period, with a painted decoration of birds and animals in various colors on white. Typical of this ware are a plate (fig. 63) in our collection, with the figure of a lion, vigorously drawn and surrounded by a wavy scroll bearing trefoils of Sasanian character, and a bowl decorated with the figure of a bull.

3. *Persian Pottery from the XI to the XIII Century*

Greater technical skill and a new style of decoration appear in Persian pottery of about the eleventh century. The walls of the vessels become increasingly thinner, and the base gradually develops into a conical foot. New methods of decoration, such as piercing, are now employed. The body is much harder

than in the earlier specimens and is grayish white instead of light red; the glaze may be ivory white, turquoise blue, or, more rarely, green. Excavations at Rhages have yielded most of the examples known of this type of pottery. An early specimen in this Museum has an incised design of fishes and pierced dots covered by a translucent blue glaze (fig. 64). The drawing of the fish motives is of special interest as it exhibits a new linear, almost calligraphic, quality. In this bowl, which must be assigned to the eleventh century, and not to the ninth, as suggested by Pézard, we see the first attempt at pierced decoration. In later specimens the pierced decoration is more elaborate, as may be noted in several specimens in our collection, one of which is illustrated in figure 65. Such pieces are sometimes wrongly called Syro-Egyptian instead of Persian.

Fig. 60. Dish, Persian, Hamadan-Zenjan, X-XI Century

In this period Persian potters were also eminently successful in imitating Chinese porcelain in white glazed pottery of such thinness that it has the translucency of hard porcelain. Several examples are in our collection.

A very interesting and little-known type of Persian pottery of the twelfth and thirteenth centuries is characterized by painted decorations in black and cobalt blue under a thin ivory yellow or copper blue glaze (fig. 66). The fish and bird motives, the scrolls, wreaths, and palmettes composed of curling leaves that ornament this ware are painted in a hasty im-

pressionistic technique of Chinese origin. The period of production is determined, in addition to stylistic considerations, by two specimens, a bowl, dated A. H. 607 (1210), in the Kaiser Friedrich Museum and a jug, dated A. H. 612 (1215/16), in the V. Everit Macy Collection.

Some examples of Persian ware of the thirteenth century are decorated in black under a turquoise green glaze. The designs consist of arabesques or figure subjects, as on a bowl in this Museum. They were possibly made at Rhages.

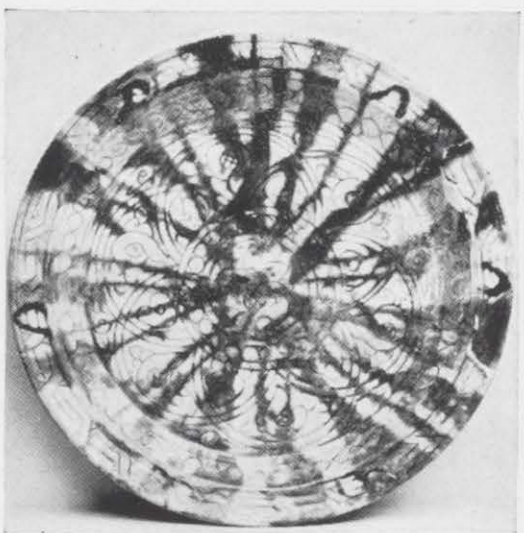


Fig. 61. Plate, Persian IX-X Century

4. *Persian Lustred Ware from the XII to the XIV Century*

Rhages, or Rai, near Teheran was a flourishing city during the Seljuk rule. In the ruins and rubbish wastes of the ancient city, which was destroyed by the Mongols in 1221, have been found many vessels, such as bowls, jugs, and ewers, with lustred or polychrome painted decoration. It may be assumed that the majority of the thirteenth-century pottery unearthed at Rhages was actually made on the spot, although other cities such as Kashan and Veramin had their own manufactories, which were probably particularly active after the destruction of Rhages.

The technique of lustre painting is perhaps the highest achievement of Near Eastern ceramic art. The earliest known specimens of pottery with metallic lustre (oxides reduced in the firing to the pure metal) go back to the ninth century. They were found at Samarra (see p. 152). Many fragments of

lustred pottery from Susa and Rhages are contemporary with the ninth-century ceramics of Samarra, but whether the lustred wares of Rhages and Susa were of local make or were imported from Mesopotamia is still a matter of controversy.

The color of thirteenth-century Persian lustre varies from a pale greenish gold to a dark reddish brown; occasionally the color of the background is a cobalt blue, but as a general rule

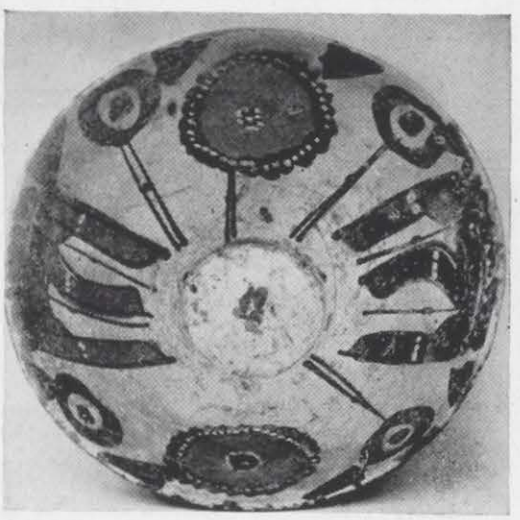


Fig. 62. Bowl, Persian
Amol, IX-X Century

Fig. 63. Plate, Persian
Kermanshah, IX-X Century

it is white, an opaque tin enamel being used. The manifold decoration, employing figure subjects, animals, birds, conventional floral scrolls, and arabesques, is either painted on in lustre or reserved upon a lustred background. The decorative effect of this ware is further enhanced by the addition of touches of turquoise and cobalt blue. Beside objects of daily use, such as bowls, jugs, and ewers in various forms, there are also tiles, square, oblong, or star- or cross-shaped, and prayer niches. The scenes depicted are either of a traditional character, illustrating episodes in the lives of national heroes, such as Bahram Gur (fig. 67), or are taken from the daily life of the court, representing princes of Mongolian appearance seated on thrones, hunting scenes, or figures of courtiers, singly or in

pairs. Birds and animals on an arabesque background also occur (fig. 69).

It is possible to distinguish among the lustred wares of Persia two stylistic groups. In one group, which may be attributed to Rhages, the figures or animals are painted in a sketchy manner on a simple background (fig. 68). In the other group, which was presumably made at Veramin, the drawing is more definite and there is an abundance of ornament in the background and of detail in the costumes (fig. 71). The many dated specimens of the Veramin type, which extend from the beginning of the thirteenth century to the early part of the fourteenth, exemplify the stylistic development of this Persian lustred ware. The earliest known example of Persian lustred ware is a dish dated A.H. 607 (1210), published by Rivière and Kühnel. Whether any of the lustred bowls or tiles are earlier than the thirteenth century is at present uncertain. To the end of the twelfth century, possibly, may be attributed a few specimens such as the bowl in figure 70, with the design of a winged horse more decorative in style than is customary in thirteenth-century lustred ceramics. The tile in figure 72 is dated A.H. 661 (1263); the ornament is limited to conventionalized scrolls and palmettes on a background of minute spirals, forming many delightful compositions and new patterns. Another tile in our collection, with an inscription in relief on a background of scrolls and birds, is dated A.H. 707 (1308). Here, instead of minute spirals, we see dots and the naturalistically treated

Fig. 64. Bowl, Persian
XI Century

leaves that occur so commonly on all fourteenth-century lustred wares. To the end of the thirteenth century or to the beginning of the fourteenth may be assigned a tazza (fig. 73) in this Museum, with representations of a Mongol prince and princess against a background of naturalistic foliage. A characteristic feature of the lustred ware of the fourteenth century is the strong Chinese influence seen in many of the ornamental motives.

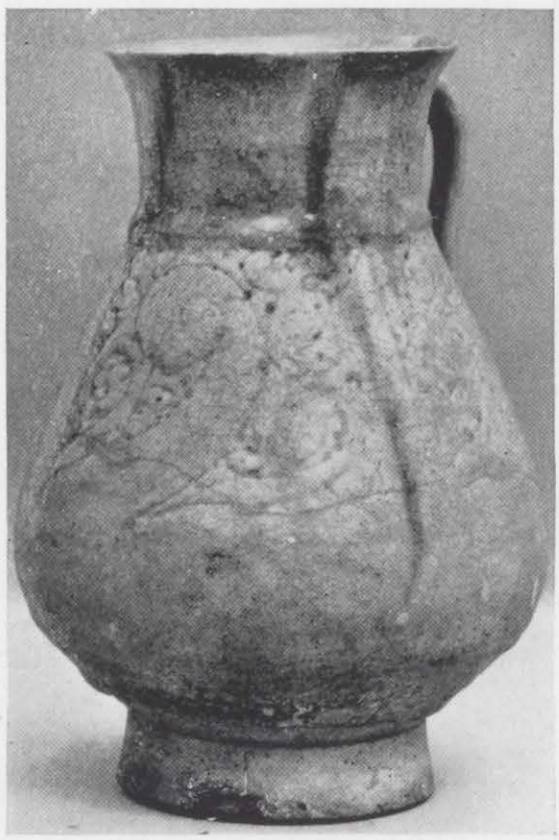


Fig. 65. Jug, Persian
XII-XIII Century

Calligraphy plays an important part in Persian ornament. It is the principal decoration of the mihrabs, of which an example in this Museum is illustrated in figure 75. This piece is decorated in relief with beautiful Koranic inscriptions, the name of the maker, Husain Ali ibn Ahmad, and a mosque lamp suspended within the niche — all on a background of minute foliage. A very elaborate and important mihrab is that from the mosque in Kashan, now in the Kaiser Friedrich Museum. It is dated the end of Safar, A. H. 623 (the end of April, 1226), and, according to Sarre, may have been made in Kashan.

5. *Persian Ceramics with Overglaze Decoration of the XIII and XIV Centuries*

Like the lustred ware just described, Persian pottery with polychrome decoration was first covered with an opaque tin

enamel in white, turquoise, or cobalt blue. Over this, after firing, the decoration was painted with various pigments in flesh pink, white, green, cobalt blue, purple, brown, ochre, and black, and then fired again at a low temperature. Finally, gilding was applied. A rare early specimen is the bowl in figure 74, decorated with a large figure of a horseman. Another splendid piece in our collection is a jug decorated with horsemen, trees, and sphinxes (pl. II). A favorite composition on this polychrome ware represents several figures grouped around a central scene, as in figure 77. Here, painted in many colors on a turquoise blue ground, a sultan is shown seated on his throne and accompanied by courtiers and entertainers. Often the decoration consists of single standing figures. Most examples of this ware have been found at Rhages, where they were presumably made. The decoration of the polychrome Rhages ware closely resembles the thirteenth-century lustred pottery described above and may be assigned to the same period.

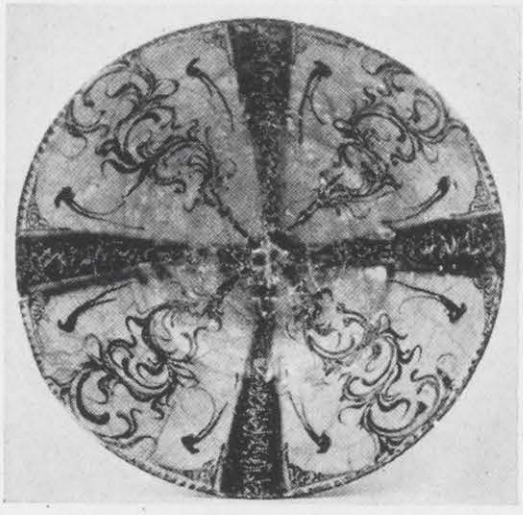


Fig. 66. Bowl, Persian
XIII Century

Attributed to Rhages or Veramin are tiles, bowls, and jugs with decorations painted in white, red, and gold on a cobalt blue ground. Bottles and bowls with this type of decoration were probably made at Rhages in the thirteenth century. On the other hand, the tiles, decorated with fine linear arabesques in the style of lustred Veramin tiles of the fourteenth century, were probably made at Veramin and date from the beginning of the fourteenth century. Specimens of these tiles are in our collection (fig. 76).

6. *Sultanabad Pottery of the XIII and XIV Centuries*

A type of thirteenth- and fourteenth-century pottery, excavated at Sultanabad and probably made there, has a decoration painted in black or modeled in relief with distinctive patterns,

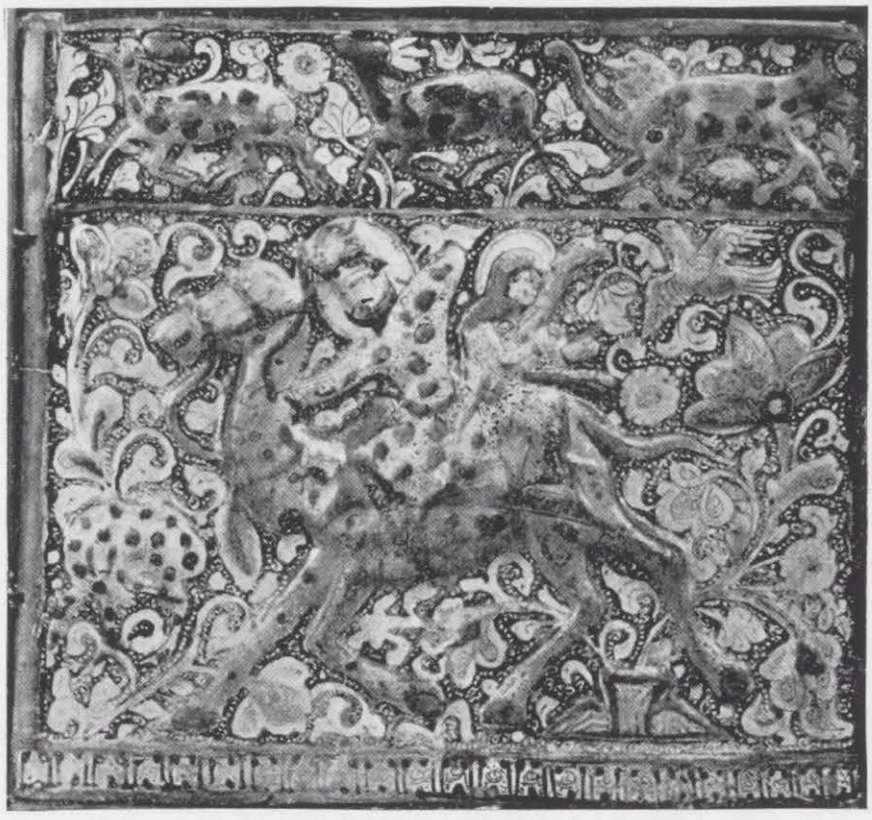


Fig. 67. Lustred Tile. Persian
Veramin, about 1300

and glazed pale turquoise blue, turquoise green, cobalt blue, or purple manganese.

The Sultanabad pottery with relief decoration displays a great variety and richness of design combined with graceful and elegant shapes. Numerous specimens of this variety, covered with a turquoise blue or deep cobalt blue glaze, are in our collection. Intricate and delicate linear arabesques in low relief form a background against which dancers or figures of

huntsmen on foot or horseback are shown in slightly higher relief (fig. 78). Sometimes, however, the ornament consists of arabesques, as on the vase in this Museum decorated with an all-over pattern of arabesques under a cobalt blue glaze.

An important specimen of thirteenth-century Sultanabad ware with openwork decoration is a magnificent jug in the V. Everit Macy Collection that has been on loan at various times in this Museum. The jug has a decoration of running animals, sphinxes, and birds with human heads on a background of arabesques in turquoise blue, cobalt blue, and black, and is dated A. H. 612 (1215/16).

Fig. 68. Lustred Bowl. Persian Rhages, XIII Century

In the Sultanabad pottery of the fourteenth century an important change of ornament may be noticed. Instead of the abstract floral motives that form a mosaic-like pattern on vessels or tiles of the thirteenth century, there now appear numerous small naturalistic leaves, composing a highly decorative pattern. On this floral background appear human figures or, more frequently, realistically drawn animals and birds, outlined in black and reserved in white on a cobalt blue background (fig. 79). On other pieces the ornament consists only of floral motives arranged in bands and compartments. Often the color scheme is confined to black and white. Chinese influence is seen in the phoenixes and peony palmettes conspicuous on many pieces.

Sultanabad ceramics of the fourteenth century are well represented in our collection by several bowls, vases, and tiles with relief decorations under a turquoise or cobalt blue glaze.

A large tile in the shape of a prayer niche is inscribed with the names of the twelve imams and dated A. H. 712 (1312/13). Bowls of octagonal shape are decorated with motives derived from Sasanian sculptures. A jug with a band of running animals on a floral background may be noted.

Fig. 69. Lustred Tile. Persian
Veramin, Early XIV Century

7. *Persian Pottery of the XV Century*

The character of Persian pottery in the fifteenth century may be determined from pieces in the Kelekian Collection dated A. H. 873, 878, 885, and 900 (1468, 1473, 1480, and 1495). They are decorated with spirals and floral scrolls, painted or reserved in black under a green glaze, which in freedom of drawing recall the earlier wares. In this Museum are several plates and bowls (fig. 80) that may be assigned to the fifteenth century from their similarity to the dated pieces in the Kelekian

Collection. Since examples of this type of pottery have been found in Kubatcha, a mountainous place in the Caucasus, it has been claimed that they were made in Daghestan, but the place of manufacture is uncertain, although it was probably in northwestern Persia, in the vicinity of Tabriz.

Fig. 70. Lustred Bowl
Persian, Rhages, about 1200

8. *Persian Faience Mosaic*

Persian potters of the fifteenth century brought the art of faience mosaic to perfection. Mosaics of this kind were used in the decoration of both the exterior and the interior of mosques and palaces. A well-known example is the Blue

Mosque built under Jahan Shah at Tabriz. The technique of these mosaics is very elaborate. The pattern is made up of various pieces of colored enamel faience, cut into many different shapes according to the design and fixed in wet plaster. To

Fig. 71. Lustred Bowl
Persian, Veramin, XIII Century

cover large walls with patterns composed of such pieces, varying in size and shape, is a task requiring great skill. The background color is usually cobalt blue, and the decoration, white, ochre, green, turquoise blue, purple manganese, and black. The elaborate patterns are composed of floral scrolls with small leaves, rosettes, and peonies, interlaced with arabesques,

and lobed medallions outlined in white. The Museum possesses three fragments of such faience mosaics. The art continued in Persia and Turkestan during the sixteenth and seventeenth centuries.

9. *Persian Ceramic Art of the Safavid Period* (1502-1736)

Architecture, miniature painting, and rug weaving reached their highest development in Persia under the shahs of the Safavid dynasty, but the potter's art of this period, although showing much variety of design and technique, did not equal the earlier achievements, especially those of the thirteenth and fourteenth centuries.

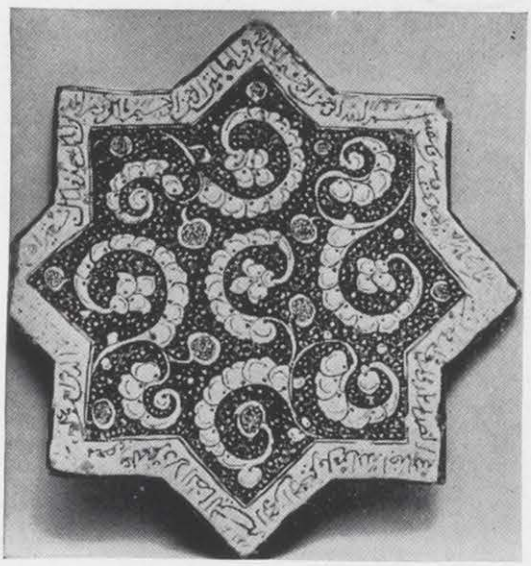


Fig. 72. Lustred Tile
Persian, Dated 1263

The importation of Chinese porcelain, which was used extensively by rich Persians and at the court of the shahs, had a considerable influence upon Persian ceramic art of the sixteenth, seventeenth, and eighteenth centuries, not only in decoration but also in the production of a semi-porcelain to rival foreign wares. There was also a revival of lustre painting, which had fallen into disuse in the fifteenth century.

A. So-called Kubatcha Ware (XVI and XVII Centuries)

The so-called Kubatcha pottery, comprising bowls, plates, jars, and tile, is either decorated in black under a turquoise blue or green glaze, or painted in polychrome under a transparent creamy white alkaline glaze which often turns a dirty

brown through use. The thick glaze has a characteristic large crackle. Floral ornament prevails, although arabesques and human figures occasionally appear.

"Kubatcha" pottery with the decoration in black under blue or green glaze is a continuation of the fifteenth-century Daghestan wares (p. 135f.), with the addition of new motives.

Fig. 73. Lustred Tazza
Persian, about 1300

Among these may be noted wormlike designs which may be simplified forms of the Chinese cloud bands of frequent occurrence in Persian ornament of the sixteenth century.

The decoration of the polychrome ware is much richer. Landscape motives are popular and recall the decorative rendering of such themes in Persian miniature paintings of the sixteenth and seventeenth centuries. These compositions of trees, plants, and rocks are enlivened by the addition of human figures, animals, and birds. They are freely, even casually drawn, but always with a sure sense of decorative design. The colors

employed are yellow, brown, copper blue, cobalt blue, green, brick red, and black, which is sometimes grayish in tone. The pigments are often so thickly applied that a relief effect is obtained. There are also "Kubatcha" plates and tiles decorated

Fig. 74. Bowl with Polychrome Decoration
Persian, Rhages, XIII Century

with busts of men or women holding cups or flowers and dressed in rich kaftans and large turbans in the style of the end of the sixteenth or beginning of the seventeenth century (fig. 81).

As many examples of this pottery are said to have come from Kubatcha, an obscure place in Daghestan, east Caucasus, the name has been given to this ware, but whether it

Fig. 75. Lustred Mihrab
Persian, Late XIII Century

was a local product or was manufactured in the vicinity of Tabriz is still uncertain. The collection of "Kubatcha" pottery in this Museum, forming part of the Isaac D. Fletcher Bequest, is very large and representative.

B. Persian Semi-Porcelains (XVI to XVIII Century)

The Persian potters of the sixteenth century, like their early

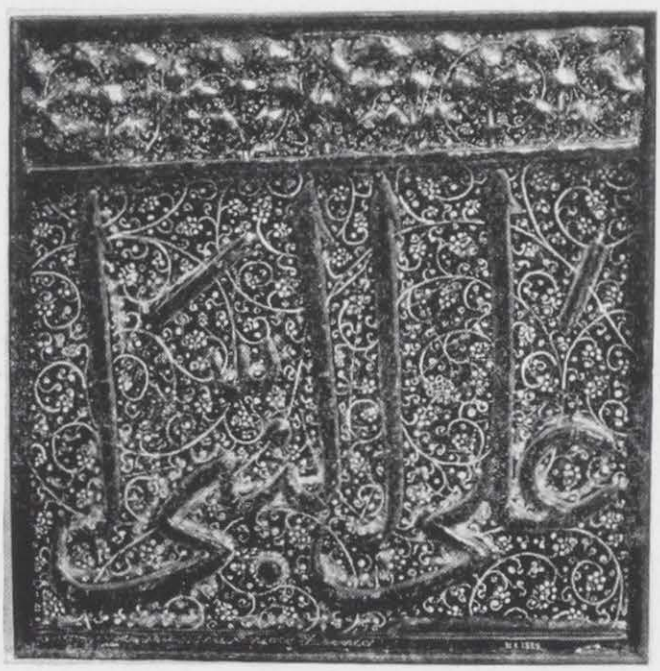


Fig. 76. Tile, Persian
Veramin, Early XIV Century

predecessors, again attempted to produce true porcelain, especially in imitation of the blue and white porcelain of the Ming period. At first only the decoration was copied but later a semi-porcelain was achieved. In our collection are a few specimens of the early type of pottery with blue and white decoration in the Chinese style. The paste is soft and of a brownish color similar to that of "Kubatcha" ware.

The terms "semi-porcelain" and "semi-faience" are applied to pottery that has been fired at a high temperature and in consequence approaches porcelain in hardness of body. Such

wares were made in Persia in the sixteenth, seventeenth, and eighteenth centuries, and may be classified in the following groups: (1) ware with lustred decoration; (2) ware with blue and white decoration; (3) ware with blue and white and polychrome decoration (so-called Kerman ware); (4) ware with blue or black decoration and pierced designs (so-called Gombrun ware); (5) ware with polychrome decoration (so-called Shiraz ware).

Fig. 77. Bowl with Polychrome Decoration
Persian, Rhages, XIII Century

With Lustred Decoration (XVI and XVII Centuries)

The most common specimens are pear-shaped bottles with slender necks, bowls, vases, and little drinking cups. The usual decoration consists of landscapes with animals and birds, painted in various colored lustres on white, blue-green, or yellow backgrounds. The colors of the lustre are gold, ruby red, and brown. Sometimes the bottles are fluted, with an alterna-

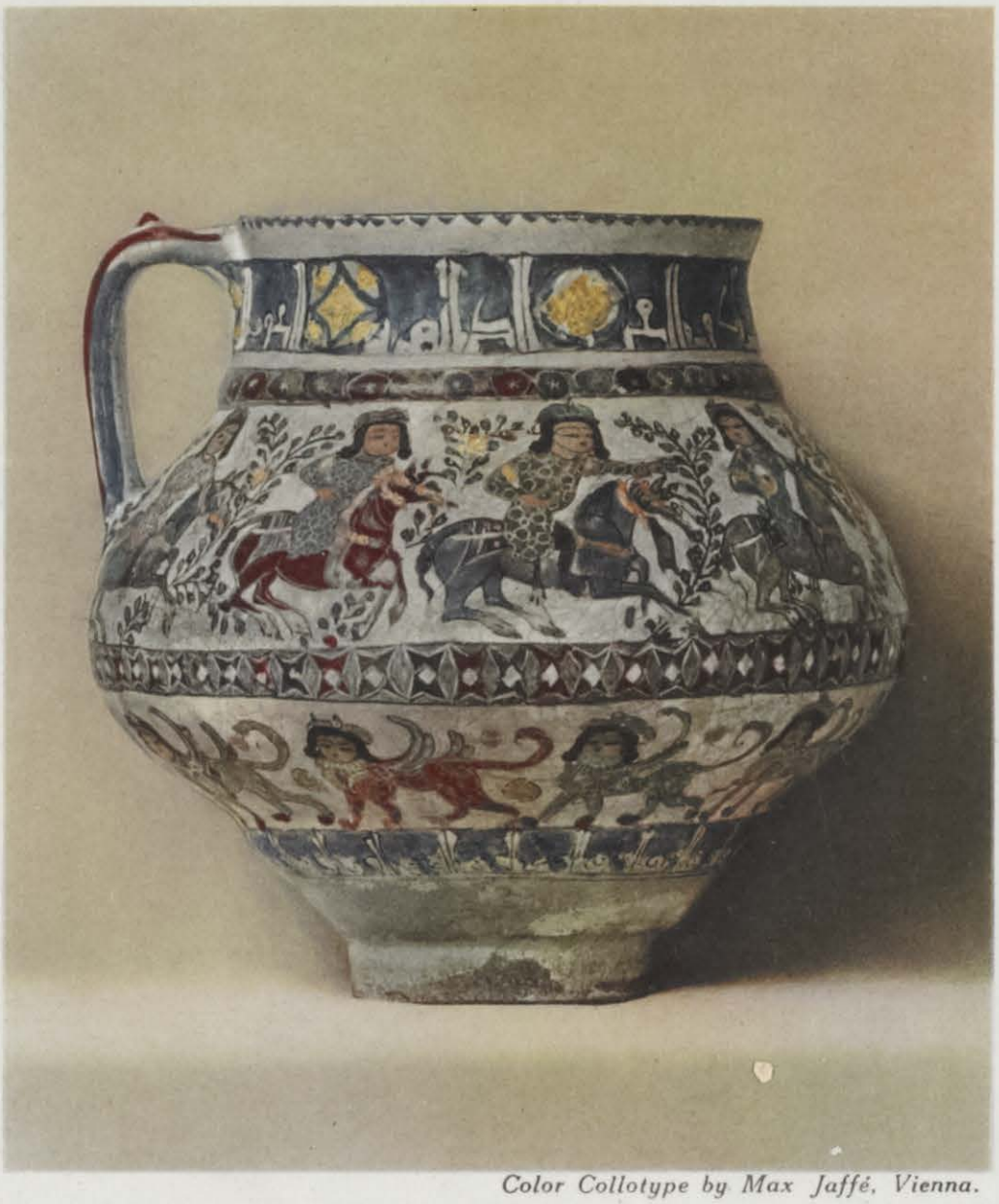
tion of colors in the flutings. The decoration may be a continuous one, or vary in each fluting, as in figure 82. This piece is a splendid example of Shah Abbas lustred ware decorated with realistically treated birds in yellow against a ground of ruby lustre and with foliage in ruby lustre against a yellow ground.

Fig. 78. Ewer, Persian
Sultanabad, XIII Century

With Blue and White Decoration (XVI to XVIII Century)

The plates, bowls, and pear-shaped bottles comprising this group vary in the degree of hardness of body. Only a few may be regarded as true porcelains. They are usually painted with landscapes, including animals and birds of Chinese character, and with Chinese symbols and cloud bands of the type seen on Ming porcelains. Occasionally we find pieces with purely Persian motives. Two very fine bottles in this Museum combine Chinese and Persian ornament, being decorated with beautifully drawn storks and arabesque medallions (fig. 83), and may be assigned to the sixteenth or seventeenth century. Many other Persian semi-porcelains with blue and white decoration are of the eighteenth century.

PLATE II



Color Collotype by Max Jaffé, Vienna.

Jug with Polychrome Decoration,
Persian, Rhages, XIII Century

The So-called Kerman Ware (XVII and XVIII Centuries)

In this type of ware, a polychrome decoration of plants and flowers in the Persian style is added to the blue and white or-

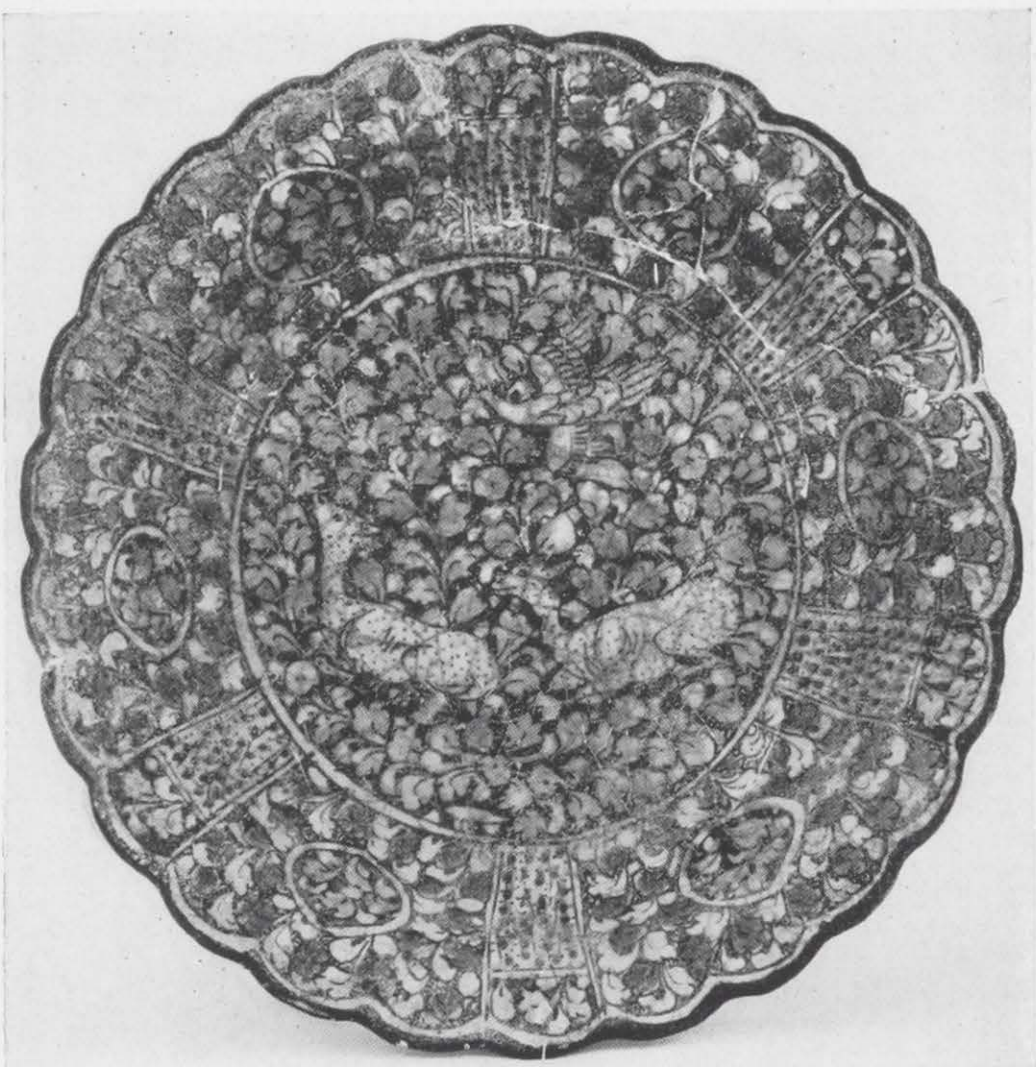


Fig. 79. Plate, Persian
Sultanabad, XIV Century

nament of Chinese decoration. Often the landscapes are animated by beasts and birds. The floral ornament is sometimes confined within medallions or other compartments, as in figure 84. In style this piece resembles the best blue and white Persian ware, and may be assigned to the seventeenth or eighteenth century.

The So-called Gombrun Ware (XVIII Century)

With Gombrun in southern Persia is associated a hard, semi-porcelaneous ware with pierced decoration and painting in underglaze blue and overglaze black. The most common specimens are deep bowls with either a low or a high foot. The white glaze has the bluish tint characteristic of late Persian semi-porcelains and the decoration consists of conventionally drawn plants, sometimes supplemented by small crosses.

Fig. 80. Bowl, Persian XV Century

The So-called Shiraz Ware (XVIII Century)

The semi-porcelains of this type show a brownish paste with a polychrome decoration in aubergine, blue, and black under a creamy glaze. The design is mainly floral, but is sometimes combined with Persian writing. This pottery may be assigned to the late eighteenth century, and probably originated at Shiraz.

10. *Kashan Ware (XVIII and XIX Centuries)*

The pottery characteristic of Kashan is almost all of recent origin. It has a black decoration under a deep blue-green glaze and exemplifies in its crude design the decline of Persian ceramic art in the modern period.

11. *The Ceramic Art of Western Turkestan*

To the potters of western Turkestan under the Samanid dynasty (874-999), the centers of production being Samarkand

and Bokhara, are attributed plates and bowls decorated with Arabic inscriptions in brownish red, olive green, and purple manganese on a white background. Besides inscriptions, we find on this pottery highly decorative scrolls, as on the beautiful bowl reproduced in figure 85. The design recalls the reciprocal patterns of the ninth-century stuccos and wood-carvings of Samarra and the Mosque of Ibn Tulun at Cairo, which were continued with only slight changes in detail in the tenth and early eleventh centuries. Recent excavations in the vicinity of Samarkand have brought to light many fragments of this Samanid pottery. Probably of this school and dating from the tenth or eleventh century is a plate in our collection decorated with a whirl rosette containing an open lotus rosette in purple manganese, cobalt blue, turquoise green, and black (fig. 86).

Fig. 81. Plate, Persian "Kubatcha," about 1600

In later centuries, the pottery of western Turkestan remained Persian in design and technique, but much of the luxurious ware used at the court and by the nobles was imported from China. In the eighteenth and nineteenth centuries, western Turkestan produced a large amount of pottery, of which there are two types — one painted in very gay colors on a brown background, the other, in green-blue and purple manganese on a white background. The designs on the latter type are usually floral in character.

12. *The Ceramic Art of Mesopotamia*

The ceramic art of Mesopotamia is better known to us today than it was a few years ago, thanks to the systematic excavations of Sarre and Herzfeld in the Euphrates and Tigris region, and especially at Samarra, the residence of the Abbasid caliphs from 836 to 883. The material yielded by these excavations is of the utmost importance in the history of early Mohammedan ceramics.

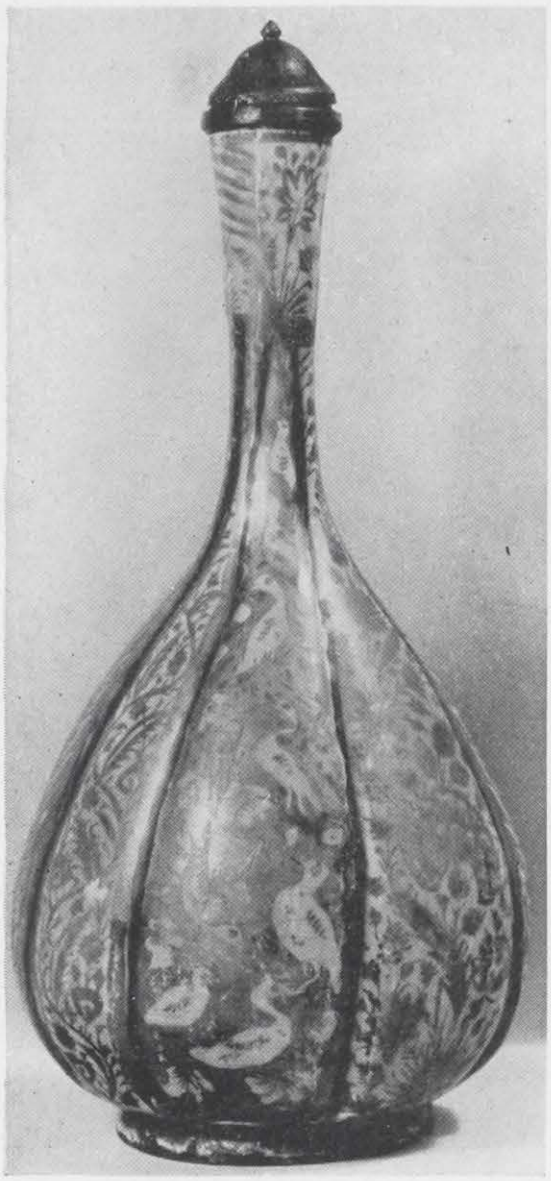


Fig. 82. Lustred Bottle
Persian, XVII Century

The pottery of Mesopotamia, during the great period from the seventh to the thirteenth century, may be divided into two main groups, unglazed and glazed pottery. The former is ornamented with stamped, moulded, or applied decoration in the so-called barbotine technique. The glazed pottery may be subdivided into several groups according to locality and technique.

A. Unglazed Pottery with Stamped Decoration from the VII to the IX Century

Pottery of this period, which consists mainly of jugs, has been found in various places, such as Kufa, Takrit, Samarra, and

Ganaur. The pieces are decorated either in low or in sunk relief by the use of stamps or moulds bearing figures, animals, rosettes, interlacings, dots, and inscriptions. Several examples, probably made by native Christian potters of the seventh or eighth century, are ornamented with crosses. The animal motives on this unglazed pottery are similar in style to those occurring on a group of vases said to have been found at Kufa in Mesopotamia. A characteristic early example of the ware, which dates from the seventh or eighth century, is the jar shown in figure 87. It is decorated with four rows of animals and an incomplete inscription in Kufic that gives the beginning of the formula: "In the name of God. . . ."

The ninth-century unglazed ware found at Samarra is ornamented with rosettes, conventional leaves, and lozenge diapers.

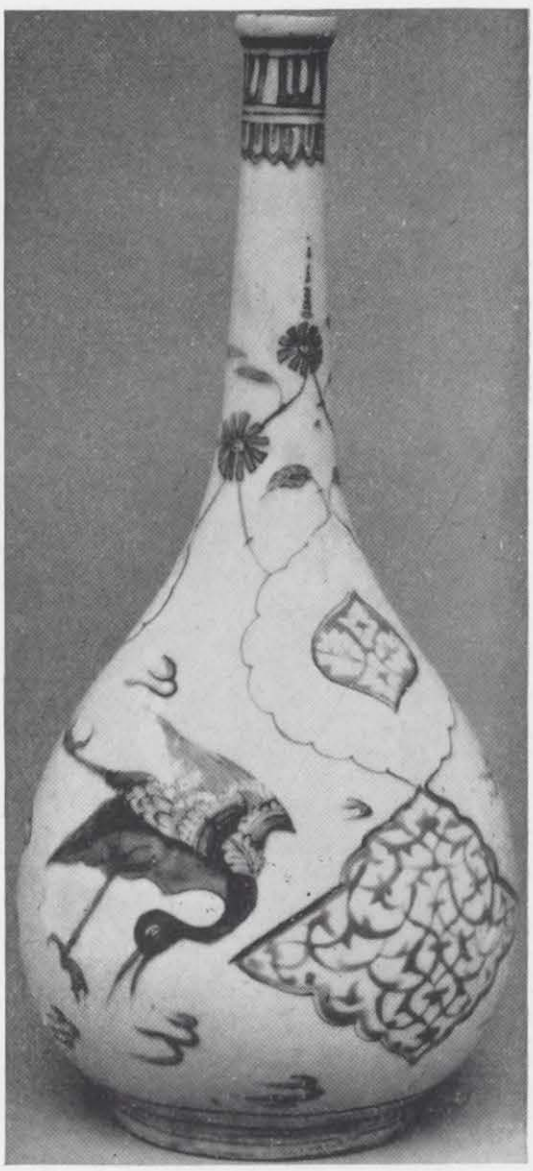


Fig. 83. Bottle, Persian
XVI-XVII Century

B. Unglazed Pottery with Stamped Decoration from the XI to the XIII Century

Pottery of this type, which consists chiefly of jars and jugs of various shapes, comes for the most part from northern Meso-

potamia, but examples have also been found in Syria, in the neighborhood of Mosul and Baalbek, and in Persia. Although some of it may have been made in Syria and Persia, the majority seems to be of Mesopotamian origin. This pottery, of which the Metropolitan Museum possesses a large number of examples, is decorated by means of stamps with animals, birds, geometrical designs, arabesques, and Kufic writing,

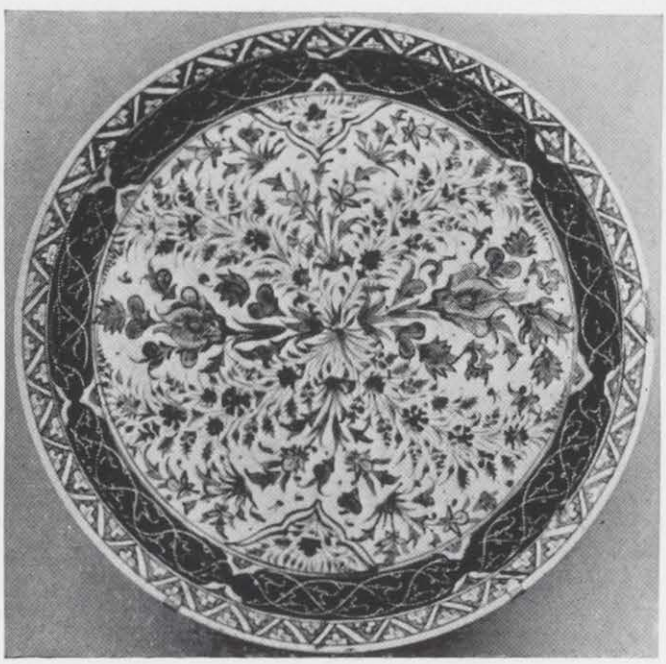


Fig. 84. Plate, Persian
Kerman, XVII Century

often on a dotted background (fig. 88). Of exceptional quality is a jug (the neck is missing) with a decoration of sphinxes, Kufic inscriptions, and geometrical scrolls. Another very fine specimen is the cover of a jar with a decoration of two birds on a background of arabesques (fig. 90).

C. Unglazed Pottery with Relief Decoration in the Barbotine Technique from the IX to the XII Century

In this group of pottery the main ornament is produced by pouring thin clay through a funnel; it is sometimes combined with ornament in other techniques. The ninth-century frag-

ments found at Samarra are rather simply decorated in the barbotine process with crude female figures that resemble the ancient Oriental goddess Ishtar. The highest development of this technique occurred in the eleventh and twelfth centuries. Generally, only the upper part of an object is elaborately decorated. A very interesting specimen in our collection is the top of the large ovoid jar shown in figure 89. The decoration

Fig. 85. Bowl from Western Turkestan, X Century

Fig. 86. Plate from Western Turkestan, X-XI Century

consists of arched compartments with pierced designs, bordered by rosettes or scrolls, and separated by female busts of a pronounced Mongolian type. The handles are in the shape of lions' heads. Vessels of this kind have been found in the vicinity of Mosul in Mesopotamia. They were probably used in the courts of the Seljuk Atabegs of northern Mesopotamia for storing water and wine, and may be assigned from the style of the decoration to the twelfth century.

D. Pottery with Monochrome and Polychrome Glazes (IX Century)

Vessels of this type, in which both coarse and fine clay were used, have been found at Samarra and Susa. The cruder ware

consists chiefly of jars of various sizes covered with blue or green blistery alkaline glazes, similar to the glazes of the Sasanian period. There are also green glazed vessels decorated in barbotine technique with bands and scrolls, the glaze being applied to both the exterior and the interior. A superior grade of glazed pottery, found at Samarra, is made from finely sifted clay that is pinkish in color. The pottery is decorated with geometrical or conventional floral designs in relief and is covered with a green glaze. A type of pottery coming mainly from the harem buildings at Samarra has a very fine, thin body of yellowish white clay. These vessels are decorated with geometrical patterns and feathery leaves, painted with green, blue, and yellow glazes.

Fig. 87. Jar, Mesopotamian VII-VIII Century

E. Lustred Pottery of the IX Century

Where was metallic lustre first employed by the ceramic artist? Pézard, Vignier, and Koechlin attribute the invention to Persia, and in Koechlin's opinion Rhages was the artistic center whence the technique and early designs spread to other points in Persia and to Mesopotamia and Egypt. A second theory is advanced by Butler who holds that lustre is of Egypto-Roman origin. Sarre accords the honor to the potters of Mesopotamia. The question is still debatable, but, for the present at least, Sarre's theory of the Mesopotamian origin of lustre is the most plausible.

Pottery with Plain Gold Lustre

The simplest form of gold lustre is obtained by coloring a transparent alkali-lead glaze with iron and antimony. Green or blue spots sometimes occur under the glaze. The clay used for this pottery, of which specimens have been found at Fustat and in Persia as well as at Samarra, is very fine in texture and of a yellowish red or brick red color. It is probable that this type of ware, plain or decorated in relief, was made in imitation of gold vessels.

Fig. 88. Jug, Mesopotamian
Mosul, XII-XIII Century

Tin-enameled Pottery with Lustre Painting

The pottery in this group is covered with opaque tin enamel upon which a decoration in monochrome or polychrome lustre is painted. The magnificent colors of the lustre change according to the direction of light or the angle of view. Pottery with light gold or brown-gold lustre, similar to that found at Samarra, has also been unearthed at Rhages in Persia. A bowl of the Samarra-Rhages type in our collection is decorated with stylized running hares, painted in brown-gold lustre (which is badly rubbed off) on a white ground (fig. 92). Other bowls of this type, found in Persia, are decorated with seated figures playing upon various instruments. Kufic inscriptions on dotted backgrounds and circles with rosettes or spirals are common motives. Pézard and other French scholars regard the lustred ware found at

Rhages as of Persian manufacture, but Sarre and Kühnel assign it to Mesopotamia.

Another group of lustred ware from Samarra is decorated with lustre painting in various colors, such as gold, yellow, olive green, light green, and brown. The motives include the so-called wing palmettes, scrolls with cone-shaped devices, various other conventional floral forms, and lozenge diapers filled with hatchings, circles, and dots. A bowl of this type is illustrated in figure 93. Similar lustred pottery has also been found at Rhages and at Fustat, but, according to Sarre, these pieces were probably exported from Mesopotamia.

Fig. 89. Top of Large Jar
Mesopotamian, XII Century

Perhaps the finest examples of these early lustred wares are the pieces covered with ruby lustre, either plain or combined with other colors, such as yellow, gold, or purple. The blending and brilliancy of the changing colors are superb. This Museum is fortunate in possessing an intact bowl covered with ruby lustre. The partly effaced decoration is painted on the interior in various shades of red and brown-gold lustre on a ground of deep ruby red lustre, which also covers the exterior including the foot of the bowl. The design (fig. 91) consists of a large palmette of "feathery" leaves within a cone-shaped compartment, flanked by other compartments inclosing leaf and spiral ornamentation. The bowl was probably made at Samarra, or at least in Mesopotamia.

Lustre was also used at Samarra on wall tiles, of which

specimens of great beauty have been discovered. The tiles in the Kaiser Friedrich Museum, showing a cock within a wreath on a yellow marbled background, are among the most brilliant and beautiful pieces of lustred ware ever executed.

F. Pottery with Overglaze Painting

Pottery of this type from Samarra is covered with a white or creamy yellow tin enamel upon which the decoration is painted in cobalt blue with splashes of green. The clay is of the same fine quality as that used in the lustred ware and the decoration consists of semi-naturalistic floral stems, palmettes, Kufic inscriptions, and other stylized motives of Chinese origin. Similar pottery has also been found at Susa and Rhages in Persia.

Fig. 90. Cover of Jar
Mesopotamian, XI-XII Century

G. Imitations of Chinese Porcelain and Stoneware

Excavations at Samarra have established a fact of the greatest importance in the history of ceramic art — namely, that white porcelain was made in China as early as the T'ang dynasty, and that it was exported, together with stoneware, to Mesopotamia. Mesopotamian potters copied both the white porcelain and the stoneware with splashed and streaked decorations in green and brown, as well as the T'ang ware with incised designs. Fragments found at Kurah, between the modern Samarra and the Tigris, lead us to believe that imitations of

Chinese stoneware were still being made in the tenth century, and, indeed, until after the twelfth century.

H. Pottery Found at Rakka (XII and XIII Centuries)

Rakka is an ancient city situated on the banks of the Euphrates between Aleppo and Bagdad. Geographically the pottery found there is Mesopotamian, though artistically and technically it is more nearly connected with the Syrian wares to be described farther on. Rakka pottery has often been erroneously associated with the period of Harun ar-Rashid (786-809), who resided in this city for some time, but a comparison of this pottery with various dated monuments in Persia and with epigraphical material establishes the time of production as for the most part in the twelfth and thirteenth centuries.

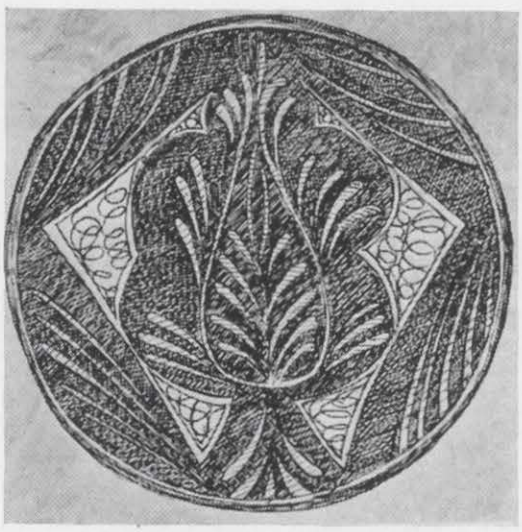


Fig. 91. Lustred Bowl (Reconstruction of Pattern)
Mesopotamian, Samarra
IX Century

With Blue Glaze and Relief Decoration

This group of pottery consists mostly of large jars, of which we possess several specimens. Arabesque scrolls and Kufic letters under a blue or blue-green glaze, which frequently runs down the jar and forms large drops at the bottom, form the usual decoration. Very often the original color of the glaze is entirely covered by a silvery iridescence resulting from decay.

Mosque lamps with relief decoration under a blue glaze, as for example a lamp in the Altman Collection, are also known. The pierced decoration consists of double interlaced bands on the neck and two interlaced ovals on the body. These lamps

are perhaps somewhat earlier than the rest of the Rakka ware, and may date from the eleventh or twelfth century.

With Painted Decoration in Black under Blue Glaze

This ware is perhaps the best known type of Rakka pottery, and appears quite frequently on the market. It is similar to Persian pottery with black and blue decoration, with which it

Fig. 92. Lustred Bowl
Persian or Mesopotamian
IX Century

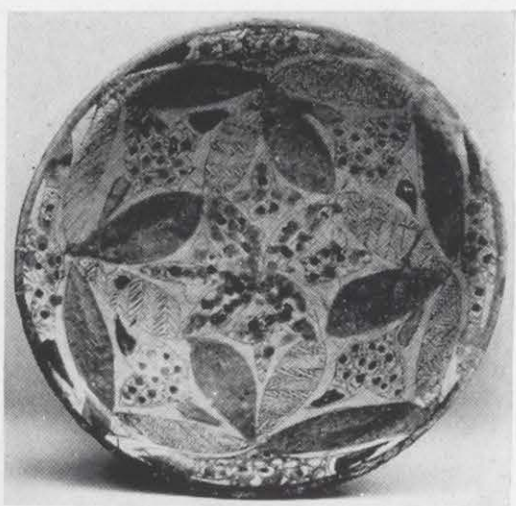


Fig. 93. Lustred Bowl
Mesopotamian, Samarra
IX Century

is often confused. There is, however, a clear difference in the clay. The Rakka body is very soft and yellowish in color; the Persian is harder and almost white in color.

Rakka ware of this type is usually decorated with arabesques and large half-palmettes. The principal motives are often supplemented by dots, commas, and spirals, which are more or less abbreviations of the linear arabesques. A typical piece is the bowl shown in figure 94. Another interesting and important piece is the bowl in figure 95. The decoration is reserved in blue-green against a black background, and consists of interlaced serpents and beautiful palmette scrolls. The motive of interlaced serpents plays an important part in Syrian and Mesopotamian art of the Seljuk period. Serpents thus in-

tertwined are perhaps symbols of evil spirits in subjection. According to Van Berchem, they became in the thirteenth century the personal or dynastic emblems of the Ortukids. Pézard has assigned our plate to the tenth or eleventh century, but it is more probably of the eleventh or twelfth century.

With Polychrome Decoration

This pottery of yellowish clay has been found at Rakka and its vicinity, and consists of graceful albarelli and bowls adorned with fantastic figures, with animals such as horses and camels, and with conventional floral designs and arabesques. This Museum possesses several complete pieces of this type, which generally are found in fragments. A very fine specimen is the bowl (fig. 96) decorated with a sphinx and plants painted in blue and black under a transparent creamy glaze showing spots of iridescence. To these colors is often added green, as may be seen on a much restored albarello in our collection, decorated with two large figures of camels, realistically drawn, and further ornamented with arabesques and palmettes. A plate in the Louvre has a similar decoration of camels. On other examples of this polychrome Rakka ware the ornament is confined to arabesques and palmettes.

Fig. 94. Bowl, Mesopotamian Rakka, XII-XIII Century

Lustred Pottery

In ware of this type from Rakka, the lustre, usually dark brown in color, is painted over a transparent greenish white

glaze. In some specimens touches of cobalt blue are added to the warm brown lustre.

The usual decoration is conventional in character; occasionally, however, animals and human beings are represented. A typical piece from Rakka is illustrated in figure 97. The

Fig. 95. Bowl, Mesopotamian
Rakka, XI-XII Century

vase is decorated with alternating bands of interlacings and Arabic inscriptions expressing good wishes. Sometimes relief ornament is combined with lustre painting. Of this type, also, are large ovoid jars with short necks, decorated in relief with bold arabesque scrolls bearing large palmettes (fig. 99).

13. *The Ceramic Art of Syria*

The ceramic art of Syria has lately been given a more prominent place in the history of Near Eastern art as a result of excavations at Baalbek, Jerusalem, Damascus, and Rusapha.

Fig. 96. Bowl, Mesopotamian
Rakka, XII-XIII Century

A. Syrian Pottery with Lustred Decoration from the XII to the XIV Century

An examination of the body and the decoration of the lustred ware long known as Siculo-Arabic reveals a great similarity to pottery excavated in Syria. The vases of this group are covered with a dark blue glaze, over which the decoration is painted in green-gold lustre. An interesting specimen of this early lustred ware is a bowl in this Museum, glazed deep purple, almost black, and painted with arabesques, meaningless Kufic letters, and dots in green-gold lustre. A Syrian origin is indicated not only by the clay, the ornament, and the glaze, but also by the color of the lustre; judging from the style of the decoration, we may assign the bowl to about the twelfth century.

Many specimens of the lustred ware found at Fustat (p. 168f.) are quite probably of Syrian origin. They are of soft, creamy yellow or grayish white earthenware and differ from the typical Fustat wares. A favorite color combination is a turquoise blue or bluish white ground with a decoration in green-gold lustre. The Metropolitan Museum possesses sev-

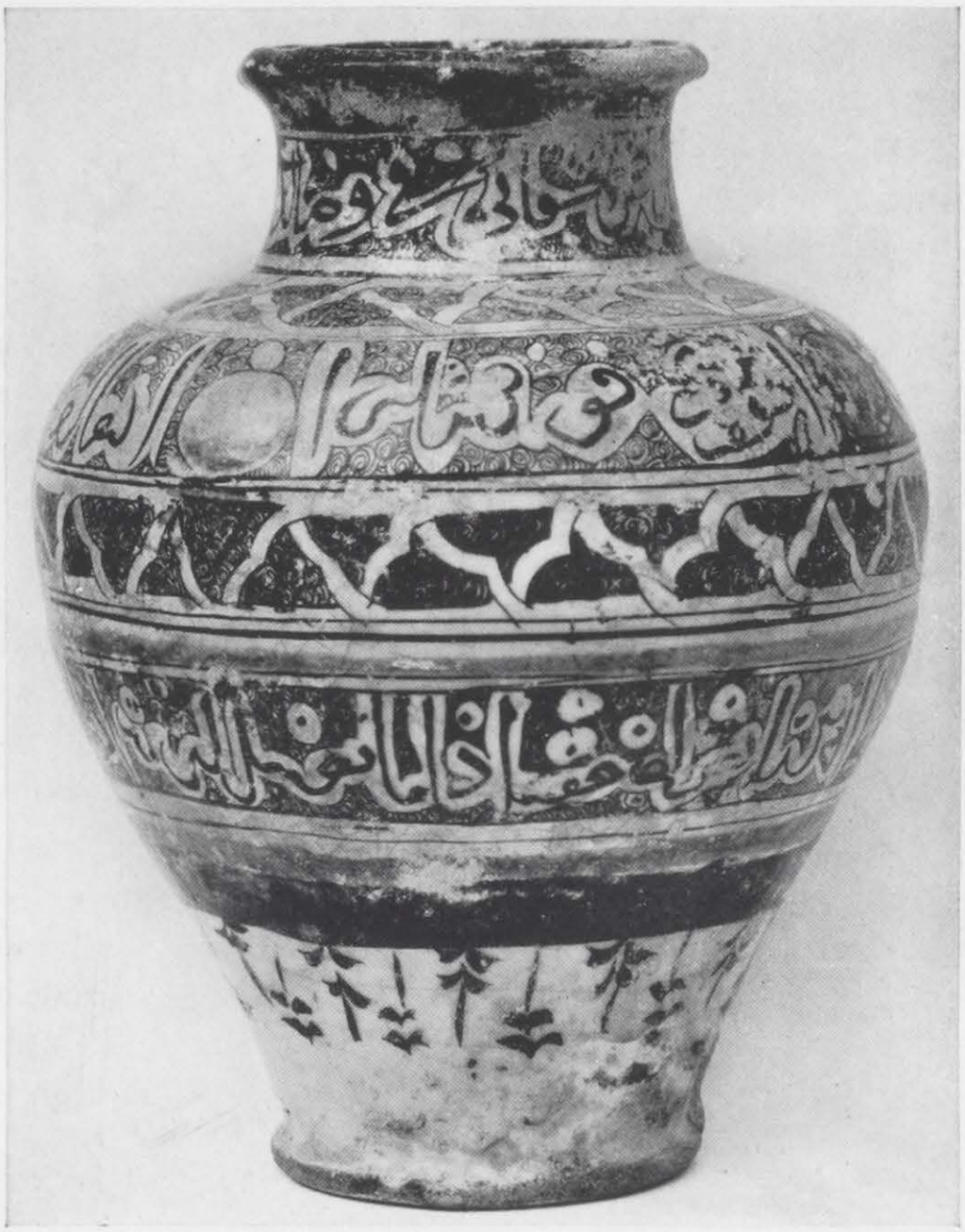


Fig. 97. Lustred Vase. Mesopotamian
Rakka, XII-XIII Century

eral specimens of this type, which are decorated either with geometrical designs or with birds and scrolls. Ornament of the latter type is seen on the fragment of a small bowl illustrated in figure 98.

A lustred vase in the collection of the Countess of Béhague is inscribed: "Made in Damascus by Yusuf for Assad of Alexandria [or Alexandretta]." The decoration of this vase consists of large Kufic letters on a background of very fine linear spirals and arabesques, of a type familiar to us from other Syrian pottery. It probably belongs to the twelfth or thirteenth century.

Fig. 98. Fragment of Lustred Bowl. Syrian XIII Century

As recorded before (p. 156) the lustred pottery found at Rakka is very similar to the Syrian lustred wares that may be assigned in general to the twelfth and thirteenth centuries. Syrian lustred wares of the fourteenth century are usually decorated with arabesque scrolls or naturalistically drawn birds with a floral background in gold lustre on dark blue. Fragments of this ware have also been found at Fustat.

B. The So-called Rusapha Ware

Pottery decorated in lustre or with underglaze painting has recently been excavated at Rusapha, in Syria, not far from Rakka. In ornament the lustred wares are similar to Rakka pottery, but are distinguished by the use of a dark reddish purple glaze in combination with gold lustre. They include some of the finest specimens known of early Mohammedan

lustre. There are indications[2] that this pottery was a luxurious product, made not only for daily use but also for decoration.

Of unlustred Rusapha ware this Museum possesses two interesting specimens, a vase (fig. 101) and a small bowl. The former has a design of three horizontal bands, medallions with palmettes, and floral motives in blue, black, and reddish brown, painted over a white slip and covered with a transparent, slightly greenish glaze. The bowl shows the design of a blue bird with red-brown wings encircled by a foliated wreath. Characteristic of Rusapha ware is this red-brown color, which does not appear in other contemporary wares.

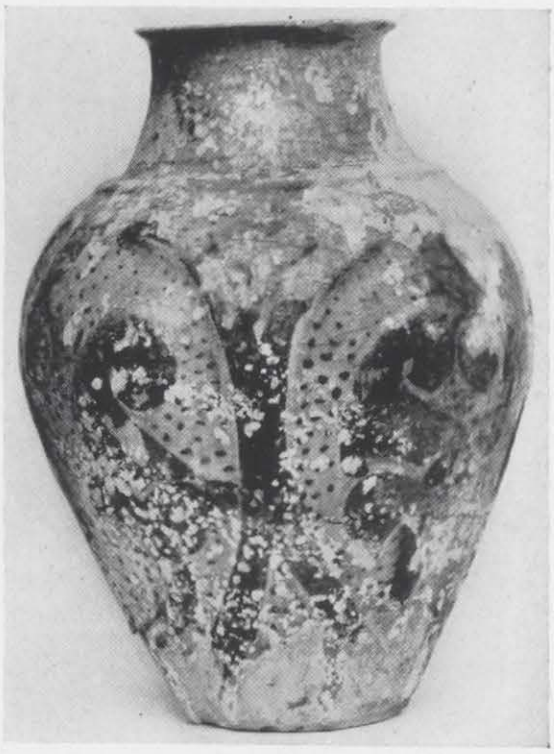


Fig. 99. Lustred Jar
Mesopotamian, Rakka
XII-XIII Century

C. Syrian Pottery with Painted Decoration from the XIII to the XV Century

In this group of Syrian pottery the decoration is painted in black, cobalt blue, and turquoise blue, sometimes with the addition of other colors, and is covered with a transparent glaze of a greenish or creamy white tint. The decoration either is analogous to Rakka wares, or resembles Sultanabad pottery of the fourteenth century, with which Syrian pottery is often confused. Most specimens date from the fourteenth or fifteenth century, although a few

[2] Holes were sometimes pierced in the foot of a piece before glazing so that it might be hung as a decoration.

examples may be assigned to the thirteenth, as, for example, the unusual plate illustrated in figure 100. This piece is decorated with the design of a bird and plants in black, brown, and cobalt blue on a white engobe under a transparent creamy glaze.

Fig. 100. Plate, Syrian, XIII Century

Favorite motives on Syrian painted wares of the fourteenth and fifteenth centuries are arabesque scrolls, interlacings, illegible Arabic letters, dots, and cross patterns, rendered in black, cobalt, and turquoise blue.

Another type of fourteenth-century Syrian ware is represented mainly by fragments found at Fustat. They are orna-

Fig. 101. Vase, Syrian, Rusapha, XIII Century

mented with realistic leaves, Chinese peonies, and birds, outlined in black, with touches of cobalt blue often thickly applied. A complete plate of this type with a peacock in the center was unearthed in Damascus, and is undoubtedly of local manufacture.

To the fourteenth or fifteenth century may be assigned a rare mosque lamp (fig. 102) in this Museum (Moore Collection), inscribed with the name of the maker: "Ibn al-Aibi at-Tabrizi" (from Tabriz). The decoration is reserved in white against a black background, with floral motives in blue. Although this well-known lamp has been attributed to Asia Minor or to Persia, the color scheme and the character of the ornament undoubtedly indicate a Syrian origin.

A large Syrian vase of about the fifteenth century, still intact, is in the Moore Collection. The body is decorated with an Arabic inscription in white on a foliated and spiral background in black and cobalt blue. The inscription reads: "Lasting glory, superabundant power, and favorable fortune [i.e., to the owner]." On the shoulder and neck are arabesques, scrolls, and palmettes drawn in the Syrian manner.

Syrian potters of the thirteenth and fourteenth centuries also manufactured pottery with the ornament painted in black and covered with a blue glaze. Several specimens of this ware are in our collection.

14. *The Ceramic Art of Egypt*

In the debris and waste heaps of Fustat, or Old Cairo, to the south of the modern city, have been found from time to time numerous fragments of various types of pottery dating from the Coptic period to the sixteenth century. Many of these ceramics are of local origin, but others were imported from Syria, Turkey, Persia, and Spain. From the beginning, Egyptian ceramic art of the Mohammedan period seems to have

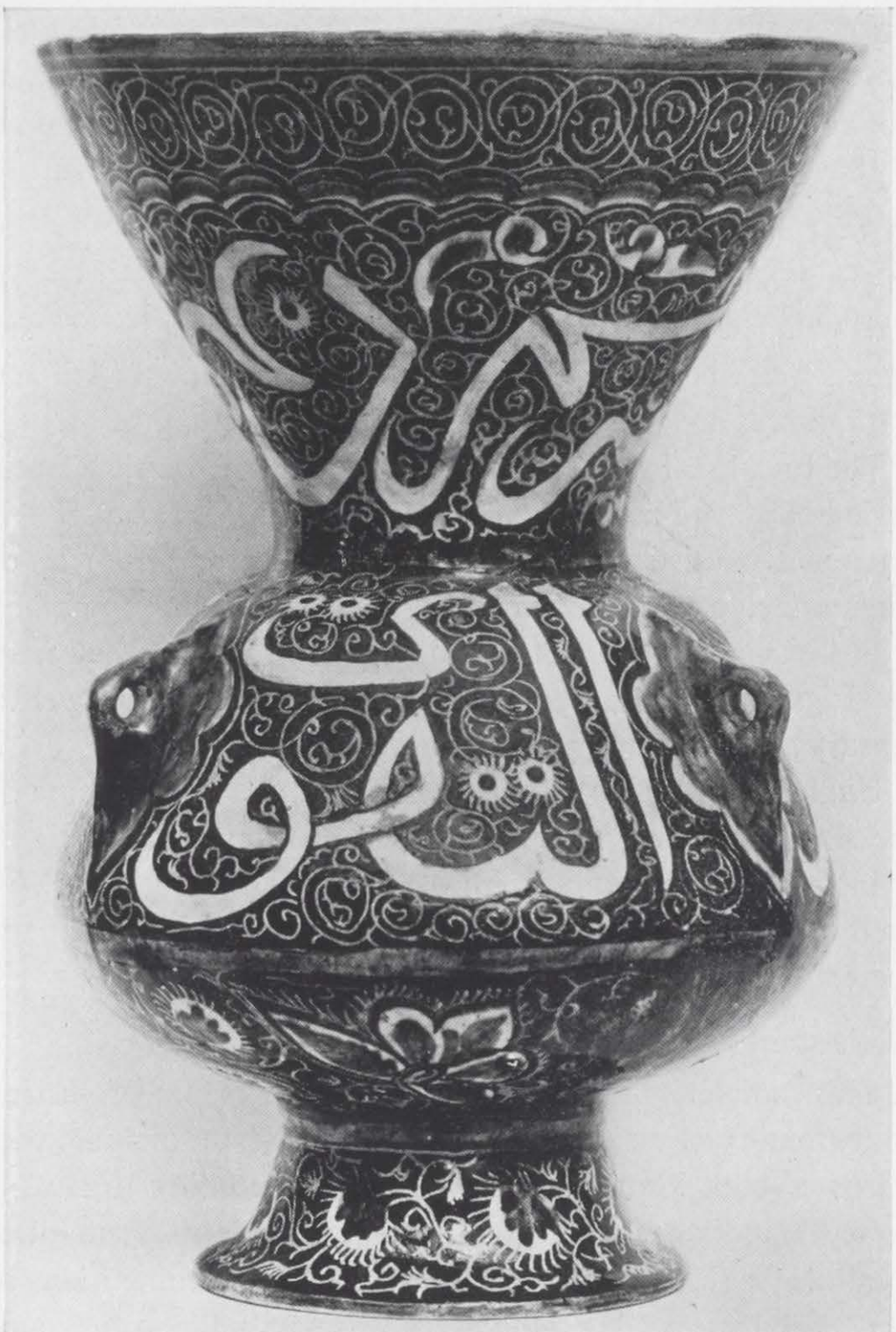


Fig. 102. Mosque Lamp. Syrian, XIV-XV Century

been influenced to a great extent by the ceramic art of Syria and Persia but very little by Coptic pottery, which was of inferior quality. The ceramic art of the Coptic period was almost wholly limited to unglazed ware with painted decoration, as the technique of glazing seems to have been little practised at that time in Egypt.

A. Unglazed Pottery

In the Mohammedan period unglazed ware took the form of seals with raised or sunken ornament for stamping bread, and porous water bottles (*gullah*), with ornamented pierced filters. Both classes are well represented in our collection.

The bread seals, of which examples dating from the Coptic period exist, are made from reddish or yellowish clay. Their ornament consists of animals (usually deer or birds) or of geometrical patterns, such as rosettes, sometimes combined with inscriptions. From the style of the ornament they may be assigned in general to the Fatimid period (tenth to twelfth century), although some examples may be earlier.

Unglazed water bottles, of the type in use since the time of the Pharaohs, have filters pierced with geometrical designs, some of which are reminiscent of Coptic art, animal motives, such as antelopes, and Kufic inscriptions. For the most part, these filters appear to date from the Fatimid period.

B. Lustred Ware from the XI to the XIII Century

A few complete pieces and numerous fragments of lustred ware, found at Fustat and other places in Egypt, include specimens of both local and foreign make. According to Butler, however, in his recent book on *Islamic Pottery* they are all of local origin (see p. 160). Butler challenges the contentions of other scholars that lustred pottery was first made in Persia or in Mesopotamia, and, in support of his theory that lustre has been known and continuously practised in Egypt since Roman

times, quotes a well-known passage from the writings of the Persian traveler, Nasir-i-Khusru, who spent four years in Cairo from 1046 to 1050. According to this text, bowls, jars, and other vessels were made at Fustat in the eleventh century, in changeable colors like those of the stuff called *bukalimun.* No convincing evidence, however, has been advanced to show that any of the lustred ware of Fustat is earlier in date than the ninth century.

Most of the lustred ware of Egypt belongs to the period from the eleventh to the thirteenth century, and only a very few examples may be assigned to the ninth or tenth century. Probably from this earlier period is a small vase in the Metropolitan Museum. It has the soft, coarse reddish body characteristic of Fustat wares, and is covered with a creamy blistered glaze, much inferior to the fine glazes of Samarra. The decoration consists of circles, half-circles, and dots, painted in lustre which varies from gold to ruby red. The piece has apparently been copied by an Egyptian potter of the ninth or tenth century from a Mesopotamian piece found at Samarra and similarly decorated.

In the eleventh and twelfth centuries, the lustre technique of Fustat was developed nearly to perfection. The body, of varying fineness, is covered with white, bluish white, or greenish white glaze, either opaque or transparent, upon which the decoration, sometimes in imitation of Syrian ware, is painted usually in gold lustre but occasionally in a red or brown lustre of great brilliancy. Many fragments in our collection exemplify the variety and fine quality of these lustres. The decoration is sometimes figural, as for example the representation of a Coptic(?) priest on the complete bowl in the British Museum, but usually it consists of birds, animals, and palmette scrolls, as on a vase (fig. 103) in our collection. Kufic inscriptions also occur.

C. Pottery of the Mamluk Period (XIII to XV Century)

Among the ceramic fragments found at Fustat, a great number, dating from the fourteenth and fifteenth centuries, are of coarse red earthenware with incised designs, covered with transparent brown, yellow, or green glaze and touched with other colors. This Museum possesses a large collection of such fragments, but of these only a few are on exhibition, owing to lack of space. Most of this pottery is in the form of a deep bowl with a high foot. The inside is decorated with animals, interlacings, floral scrolls, coats of arms, and Arabic inscriptions — mainly, titles of high officials. One of the many interesting fragments in this Museum is that found at Kus in Upper Egypt, which is incised with a design of interlaced scrolls ending in palmettes and with an inscription which reads: "Made by order of the Amir, the Just, Shihab ad-Din." This personage may be identified as Nasir Shihab ad-Din Ahmad, the Mamluk sultan who reigned in 1342. On many Fustat fragments are heraldic badges identical with those on metalwork and enameled glass of the fourteenth century.

Other pottery with incised designs of interlacings and palmette scrolls is covered with plain glazes of yellow, olive green, dark green, celadon green, and purple manganese. The clay usually shows a resemblance to that of Syrian ware. This type of ware may be assigned in general to the thirteenth or fourteenth century, although some specimens may be attributed to the twelfth.

Besides pottery with incised decoration there are also specimens with painted decoration in white, thickly applied, and covered with a transparent glaze of brown, creamy yellow, or green.

A separate group of Mamluk pottery is composed of deep bowls decorated in blue and black, occasionally with the addi-

tion of green, under a transparent white glaze. The decoration consists of inscriptions, groups of dots, or floral motives within compartments. Of frequent occurrence in this group are the names of potters, such as Ghaibi or Ghazal, with the addition of the designations, ash-Shami (the Syrian) or al-Maisri (the Egyptian) or al-Ajami (the Persian). In design and coloring this pottery resembles the fourteenth-century wares found in Syria. Judging from the shapes, which are identical with those of other Mamluk wares of Egypt, and from the different nationalities of the potters, which suggest a cosmopolitan center, we may assume that some of this ware was made at Cairo in the style of Syrian and Persian pottery of the fourteenth and fifteenth centuries.

Fig. 103. Lustred Vase
Egypto-Arabic, Fustat
XI-XII Century

15. *Turkish Ceramic Art*

The earliest known examples of the ceramic art of Asia Minor in the Mohammedan period were employed in architectural decoration and date from the thirteenth century. The mosques at Konia, the capital of the Seljuk empire, are ornamented on both the exterior and the interior with enameled bricks, or with faience mosaics, enameled in a few colors, such as turquoise blue, cobalt blue, black, and white. The designs are purely geometrical, consisting mainly of angular interlaced bands and inscrip-

tions. Both ornament and technique are essentially Persian in origin, as they were introduced by Persian craftsmen working in Asia Minor. In the Sirtcheli Madrasah in Konia (1243), for example, the name of the architect occurs: "Muhammad son of Muhammad, son of Othman, architect of Tus in Khorasan."

A. The Ceramic Art of the Early Ottoman Period (XIV and XV Centuries)

In the middle of the fourteenth century, under the rulers of the house of Othman, a new chapter in the art of Asia Minor began, and Brusa, the dynastic residence of the new empire, became an important art center. The enameled bricks, or cut mosaics, that had been popular in the earlier period were superseded for the most part by large tiles, usually rectangular in shape. The patterns were first outlined in black on the engobe; the areas thus defined were then filled in with variously colored enamels of thick consistency, causing the design to appear in slight relief. The same technique was also practised in Persia. Magnificent examples of fifteenth-century tile decoration occur in the Green Mosque and the Green Tomb of Sultan Muhammad I at Brusa. The mihrab, or prayer niche, of the Green Mosque, which was built during the reign of Sultan Muhammad I (1413-1421), is decorated with arabesques and floral motives showing Chinese influence. That the mihrab was made by Persian artists is proven by an inscription on the niche: "Work of masters from Tabriz." The color scheme is similar to that of the earlier ceramics, but with the addition of purple manganese, green, and yellow. An example in our collection of these fifteenth-century wall tiles is illustrated in figure 105. On a cobalt blue ground within a yellow arch are arabesques in white, turquoise blue, and dark purple manganese; outside the arch are interlaced bands in white.

The art of underglaze decoration became highly perfected in the fifteenth century. To this period are assigned a group of mosque lamps in the Louvre, the British Museum, and the Evkaf Museum, decorated in blue and white with arabesques,

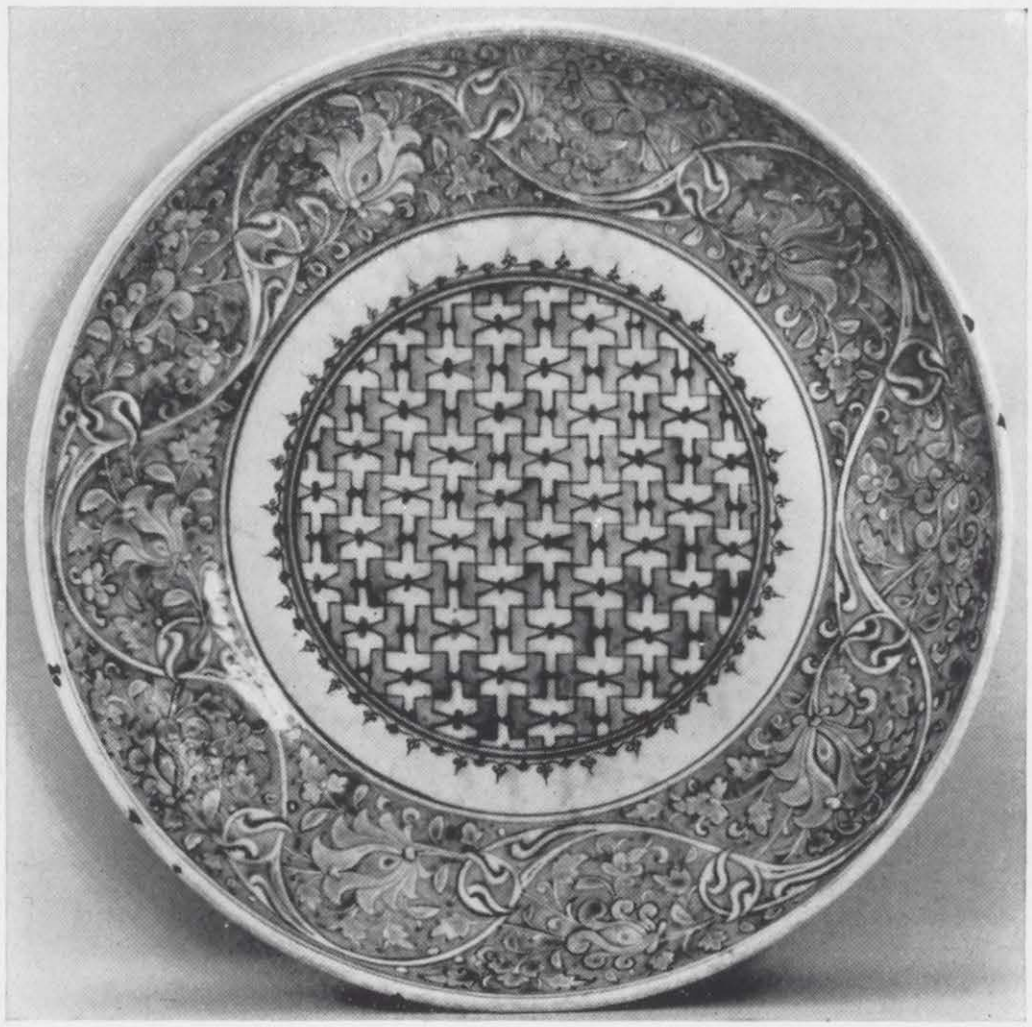


Fig. 104. Plate, Turkish
Asia Minor, XV Century

conventional floral scrolls, Chinese cloud bands, and Kufic inscriptions, which are attributed by Kühnel to the school of Kutahia, and by Migeon to Tshinili-Isnik (Faience-Isnik) in Asia Minor. In technique and decoration they show strong Chinese influence, which came to Asia Minor directly or through Persia. An unusually fine specimen of this group is

a large plate (fig. 104) in the Altman Collection decorated in two shades of cobalt blue, turquoise green, and white.

B. The Ceramic Art of Asia Minor (XVI and XVII Centuries)

The most important ceramic center of Asia Minor in the sixteenth and seventeenth centuries was Isnik, although other centers are known to have flourished. The ceramic art of Isnik, or Nicea, attained its highest development in the second half of the sixteenth century and at the beginning of the seventeenth. The Turkish potters had become thorough masters of the art of underglaze polychrome decoration painted in brilliant colors, such as a light cobalt blue, turquoise blue, green, yellow, and red-brown, and a characteristic tomato red, the bolus earth which also occurs on the so-called Kubatcha pottery. Most of the polychrome ware of Asia Minor, splendidly represented in our collections, dates from the beginning of the seventeenth century, when the production of pottery was at its height. In the time of Ahmad Khan (1603-1617) there were in Nicea three hundred ceramic factories. The typical ornament consists of palmettes and realistically rendered flowers, such as tulips, hyacinths, carnations, and roses (pl. III).

Fig. 105. Wall Tile. Turkish Asia Minor, XV Century

The Persian style of Turkish pottery is represented in this Museum by several panels of tiles. One of them has a diaper pattern of floral stems with rosettes, vine leaves, and large palmettes; the border is decorated with floral stems, palmettes,

Fig. 106. Panel of Tiles. Turkish
Asia Minor, Late XVI Century

and Chinese cloud bands on a blue ground (fig. 106). Sometimes the decoration is only in blue, white, and green, without red, as on a tile and a bowl in this Museum; these pieces probably date from the sixteenth century as the designs are less realistic than was the rule in the following century. To the end of the sixteenth century may also be attributed several plates (fig. 107) and a mosque lamp in our collection.

Fig. 107. Plate, Turkish
Asia Minor, End of
XVI Century

At the beginning of the seventeenth century the naturalistic motives, which had been combined with more formal ornament borrowed from Persia, began to predominate. This development is illustrated by the tiles of the Mosque of Sultan Ahmad (1614) in Constantinople. The compositions in this period are still quite symmetrical, but tend to become less rigidly so. This is especially noticeable in the designs on plates, ewers, and mosque lamps (fig. 108).

Towards the end of the seventeenth century there was a marked decline in Turkish ceramic art. The drawing was careless, the colors were pale, and instead of the brilliant and characteristic tomato red, a dirty brownish red resulted from careless firing.

C. The So-called Kutahia Ware (XVIII Century)

To Kutahia are assigned small cups, bowls, and saucers decorated chiefly with floral motives, although figures in gay colors

PLATE III

Color Collotype by Max Jaffé, Vienna.

Panel of Tiles, Turkish, Asia Minor, XVII Century

sometimes occur. As a few pieces bear Armenian inscriptions, it is probable that this type of pottery, which has little artistic quality, was made by Armenian potters settled at Kutahia.

D. The Turkish Ceramic Art of Syria from the XVI to the XVIII Century

Fig. 108. Mosque Lamp
Turkish, Asia Minor
Late XVI Century

Among the Turkish ceramics of the sixteenth and seventeenth centuries may be distinguished a group in which purple manganese is substituted for the tomato red characteristic of the wares of Asia Minor. The designs on pottery of this type are identical with those of Asia Minor, but frequently a greater elegance of execution may be noticed. Examples in which purple manganese occurs have usually been assigned to the school of Damascus, and rightly so, since recent excavations near Damascus, as well as literary references and existing examples in mosques, give sufficient proof that pottery of high quality was manufactured in Syria.

Our collection includes many Syrian tiles of the sixteenth and seventeenth centuries but only a few plates (fig. 109) and other objects. To the second half of the sixteenth century may be assigned a mosque globe in the Altman Collection, decorated with arabesques, large rosettes, and Chinese cloud bands

in blue, green, black, and purple. Dating from the end of the sixteenth century is a panel of tiles (fig. 110), decorated with a diaper pattern of floral scrolls, conventional palmettes, tulips, carnations, hyacinths, and pomegranates in turquoise blue, cobalt blue, green, and purple manganese.

In Syria as in Asia Minor, the style of decoration became freer in the seventeenth century, although symmetrical composition did not entirely disappear. The eighteenth-century wares continue the traditional color scheme, but the drawing is inferior to the earlier examples. A characteristic specimen in our collection is a panel of tiles inscribed with the names of Allah, Mohammed, and the four Orthodox Caliphs; it bears the date A. H. 1150 (1738/39).

Fig. 109. Plate, Syrian
Damascus, XVII Century

16. *Hispano-Moresque Ceramics*

The conquest of Spain by the Omayyad dynasty led to the establishment of an important center of Mohammedan art and culture in western Europe.

The earliest known ceramics of Arabic Spain have been unearthed in the palace of Medinat ez-Zahra, near Cordova. Much of the pottery so found is probably the work of native Cordova potters, and may be assigned to the second half of the tenth century. The painted decoration consists of birds, floral motives, and inscriptions in green, blue, and dark brown. Fragments of lustred ware, imported probably from Samarra, have also been found at Medinat ez-Zahra.

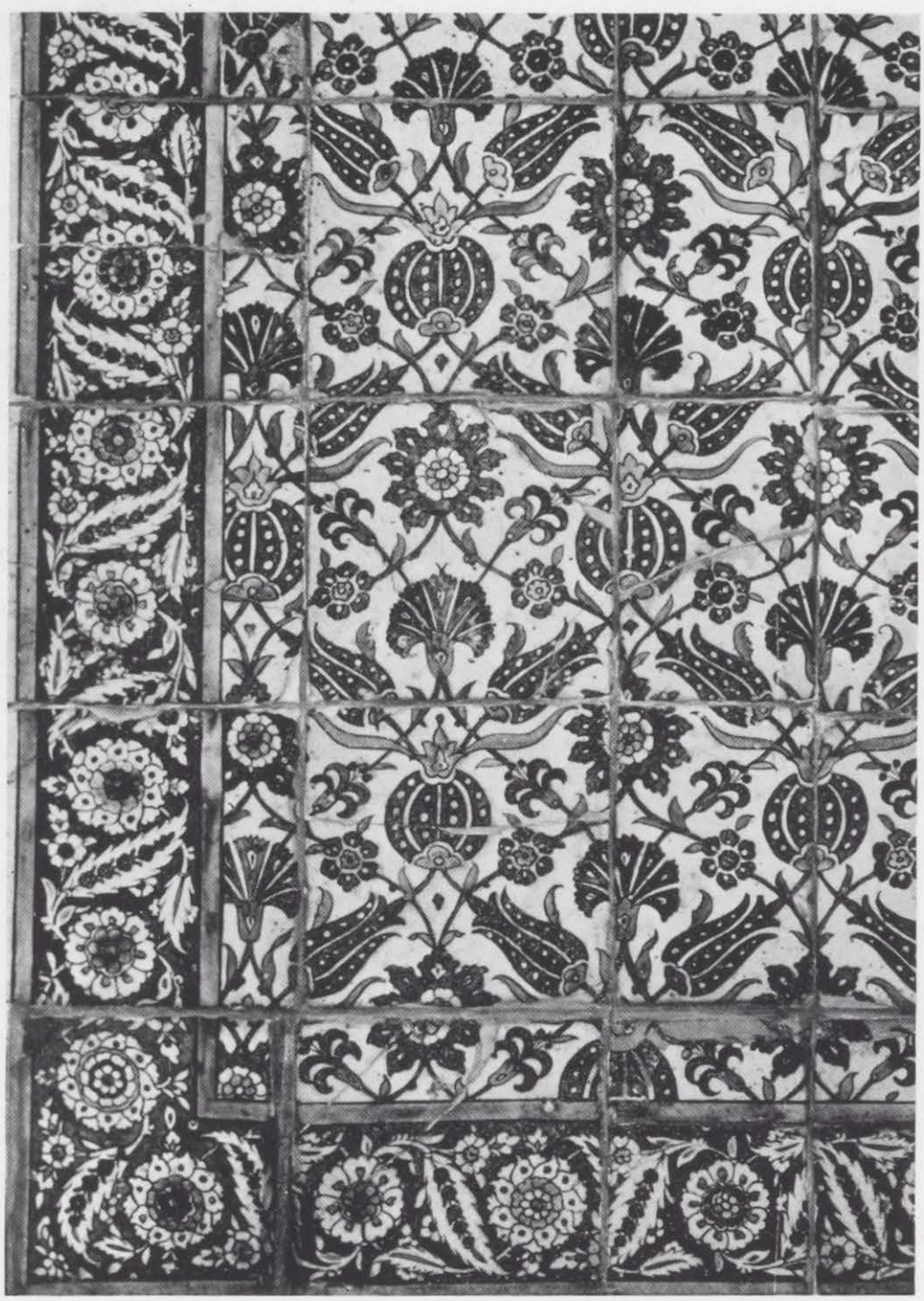


Fig. 110. Panel of Tiles. Syrian
Damascus, XVI-XVII Century

Hispano-Moresque pottery from the eleventh to the thirteenth century is still very little known. We may assume, however, that the manufacture of both lustred and painted ceramics continued in this period. The contemporary Moorish potters of Andalusia were manufacturing well tops and large water jars with a decoration stamped or moulded in relief. This type of ware is either unglazed or covered with a green glaze. An early example, dated A. H. 430 (1039), a well top from Seville with a decoration in barbotine technique, is in the Archaeological Museum in Madrid. A large unglazed water jar in this Museum, decorated with straight and wavy bands in relief and with geometrical ornaments, may be assigned to about the thirteenth century. Most of the known pieces of this richly ornamented ware belong to the fourteenth and fifteenth centuries.

Fig. 111. Lustred Albarello
Hispano-Moresque, XV Century

In the fourteenth century the Mohammedan potters of Malaga excelled in the production of large vases, tiles, and bowls with a magnificent decoration in gold lustre. Best known are the ovoid "Alhambra vases" with wing handles. The purely

Mohammedan decoration is composed of arabesques, inscriptions, and stylized animals, as on the famous vase in the Alhambra at Granada. At the beginning of the fifteenth century, as for instance on a tile in the Osma Collection, naturalistic motives of European origin began to occur.

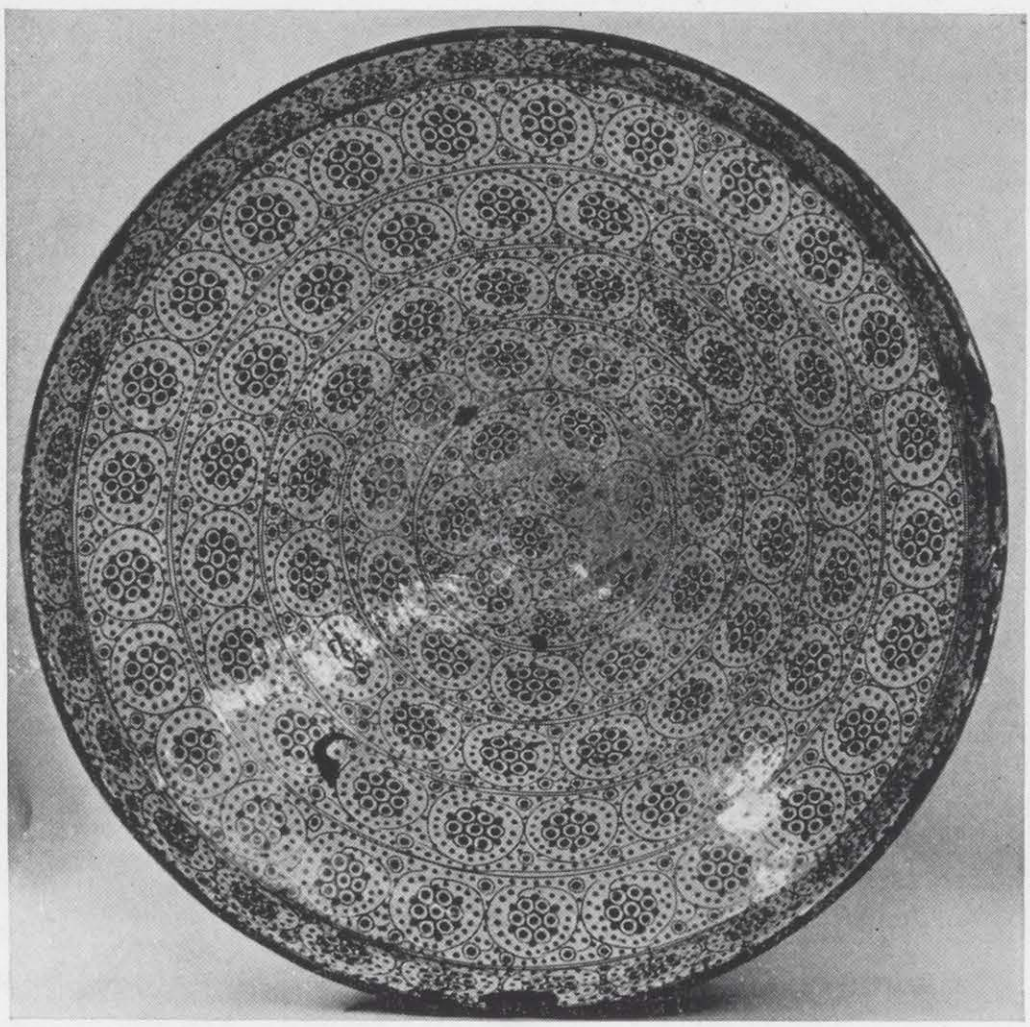


Fig. 112. Lustred Bowl
Hispano-Moresque, XV Century

An important ceramic center in Spain from the fourteenth through the sixteenth century was Manises, near Valencia. The lustred pottery produced there, consisting of albarelli, plates, and vases, is frequently painted with coats of arms which permit an approximate dating.

To the beginning of the fifteenth century is assigned a type of lustred ware which perpetuates, but with a decline in quality, the traditions of the school of Malaga. The motives comprise arabesques, palmettes, and interlacings in brown lustre and blue, together with simulated Arabic inscriptions derived from the word "peace" (fig. 111).

Typical of the lustred ware of the first half of the fifteenth century are plates or bowls with rosette blossoms on a dotted background (fig. 112). Frequently this ornament is combined with animals and Gothic inscriptions in blue.

Fig. 113. Bowl, Hispano-Moresque, Paterna
XIV Century

To the period between 1450 and 1465, Kühnel attributes lustred plates and bowls with a large pattern of lions and birds on a background of scrollwork and large palmettes. Such palmettes are also frequently painted on the backs of lustred plates.

In the second half of the fifteenth century lustred plates and vases were usually decorated with vine scrolls in blue and gold that became more formal and stylized towards the close of the century. The vine scrolls were commonly combined with coats of arms. One such plate in this Museum shows the coat of arms of the de' Medici family of Florence (fig. 114).

In the sixteenth century, the manufacture of ceramics at Manises passed gradually into Christian hands. The patterns become very small and European in style, losing their connection with the Moorish tradition. Exception must be made, however, for a number of large, square, unglazed tiles, whose painted pattern remained Oriental in style. The designs in

black and red show various animals on a background of arabesques. These tiles, usually attributed to the fourteenth and fifteenth centuries, were made, as Kühnel has shown, in the

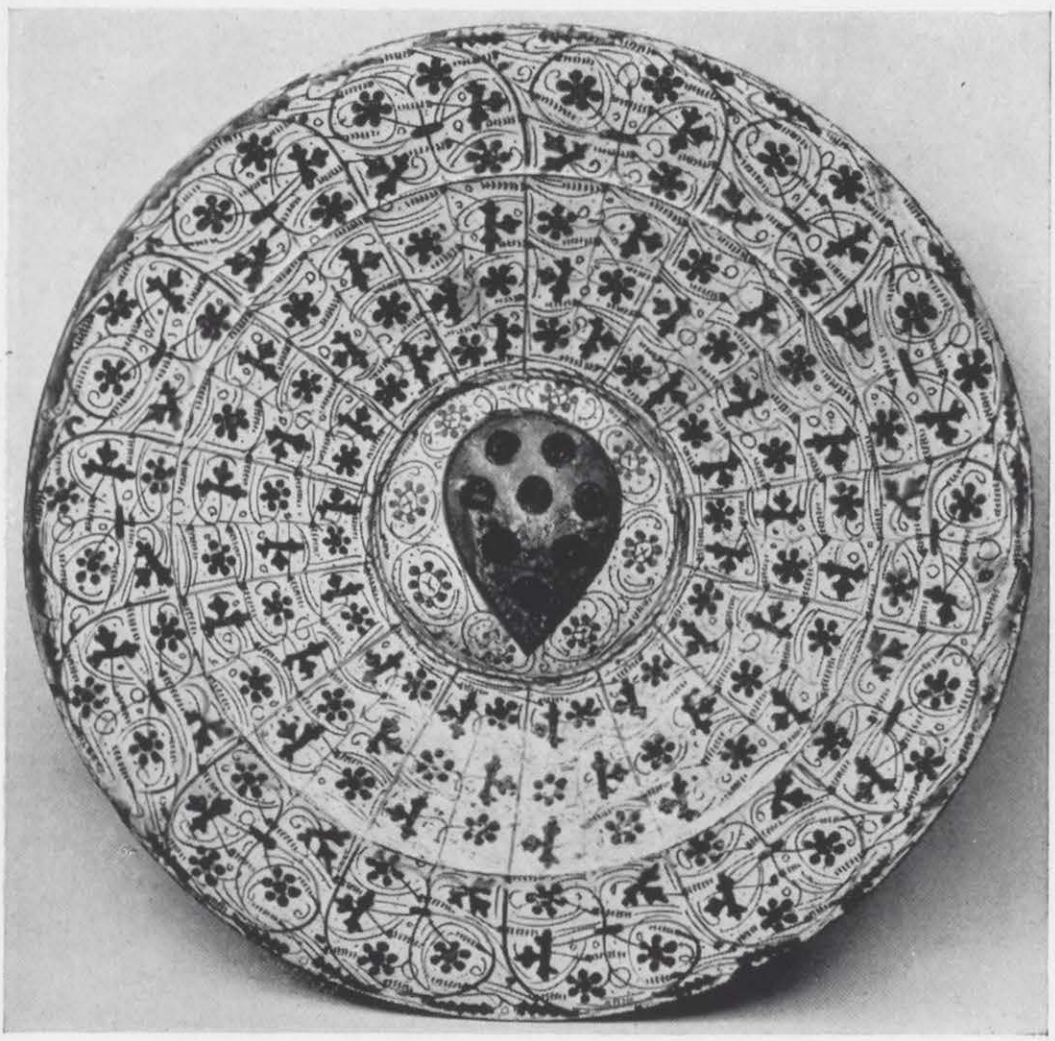


Fig. 114. Lustred Plate
Hispano-Moresque, XV Century

beginning of the sixteenth century by the Moorish potters of Manises.

Pottery with painted decoration in green and purple manganese has been discovered within the last few years at Paterna, in the vicinity of Valencia. The decoration of this ware, unlike that of Manises, consists of animals — such as lions and birds — and human figures stylized in the Oriental fashion. The

majority of examples known to us seem to date from the fourteenth century. In our collection is a large bowl (fig. 113) with a highly decorative figure of a lion.

Chapter XI. Glass and Crystal[1]

Early glass in Galleries E 14 and H 10 (Moore Collection); later glass in Galleries E 12 and H 20

1. *Early Arabic Glass and Crystal*

Before the thirteenth century, with the exception of some Fatimid productions, the glass of Islam offers little that is of artistic interest. In Egypt, soon after the Arab conquest, glass was used for the manufacture of money weights and measures of capacity in the form of coinlike disks and heavy rings.[2] From the dates and names impressed in the glass, it is evident that the use of these weights and measures, which had their prototypes in Roman times, continued as late as the fifteenth century. Another variety of early Arabic glass is composed of small undecorated bottles of various shapes, intended no doubt to hold perfumes, which have been found in Egypt and elsewhere in the Near East. Two examples of this type in the Museum collection come from the excavations at Samarra in Mesopotamia, and date from the ninth century. These small bottles are usually iridescent, owing to burial in the earth. Fragments of glass of the tenth or eleventh century, with decoration in red and gold lustre on clear or brown glass, have been found at Fustat in Egypt. Painting under

[1] This chapter was written by Joseph Breck.

[2] The Metropolitan Museum has representative specimens in its study collection.

glass was also practised by the Arabic glass-workers, to judge from a fragment, also from Fustat, now in the Arab Museum at Cairo. Of Syrian or Egyptian origin are two flasks in our collection, each in the form of an animal supporting a bottle in a basket. They are possibly as early as the eighth or ninth century. Characteristic of the moulded glass of the Fatimid period are long-necked bottles of spherical form decorated with geometrical patterns or animal motives in medallions. Two bottles of this type are owned by this Museum (fig. 116).

Fig. 115. Rock Crystal
Egypto-Arabic
XI-XII Century

Of greater interest artistically, among these specimens of early Arabic glass, are the rare examples in which the decoration is either deeply cut, or moulded and cut, in imitation of Fatimid rock-crystal carvings. Probably as early as the tenth century, and of Egyptian origin, are a few early pieces of bluish glass with relief ornamentation in the Arab Museum. Another type is represented by several cups of heavy, thick glass, somewhat smoky in color and decorated with eagles, lions, griffins, and other animals moulded and cut. These also are Egyptian, and date from the tenth to the twelfth century. There are other cups of this type — sometimes called *Hedwigsgläser* because one of them was once associated with a relic of Saint Hedwig — in museums at Amsterdam, Nuremberg, and Breslau, and in the treasury of the Abbey of Oignies at Namur.

In connection with these imitations in glass of rock-crystal carvings, it should be noted that in the Fatimid period true

rock-crystal carving was done with great skill in Egypt and probably also in Sicily. For engraved seals and rings the Mohammedans used various precious stones; but for large pieces, such as cups and ewers, rock-crystal was favored above other stones. Beautifully fashioned crystal cups and ewers of the tenth century are in the treasury of Saint Mark's in Venice, in the Louvre, and in several other European museums. A celebrated ewer in Venice bears the name of the Caliph al-Aziz (975-996). Of this Fatimid rock crystal there is only one example in the Metropolitan, the cylindrical piece forming the shaft of a candlestick (fig. 115) in the Morgan Collection; the mounts of copper gilt are French work of the twelfth century. Pieces of rock crystal of this type were highly prized in the Middle Ages. Many were undoubtedly brought to Europe at the time of the Crusades and mounted in a manner to accord with their precious character.

Fig. 116. Glass Bottle
Egypto-Arabic
X-XI Century

2. *Enameled Glass of the XIII and XIV Centuries*

The great period of Mohammedan glass begins with the thirteenth century, when glass with enameled decoration makes its appearance. In this and the following century the glass-workers of the Near East achieved their highest perfection, but unhappily, surviving examples of this richly ornamented ware are far from numerous.

A small group of vases, ewers, and long-necked bottles is distinguished by bands of polo or hunting scenes, which form a conspicuous part of the decoration. Goblets with similar figure and animal subjects or with simpler all-over patterns con-

Fig. 117. Standing Cup, Enameled Glass
Mesopotamian or Syrian, XIII Century

stitute a related group. Owing to the absence of inscriptions, the origin of this type of enameled glass is conjectural, but the similarity of the decoration to that of the inlaid metalwork of Mesopotamia and Syria makes the same origin probable and permits us to assign the glass to the thirteenth century.

Although the actual evidence for the manufacture of glass in Mesopotamia is slight, it is unlikely that this craft, certainly

Fig. 118. Mosque Lamp, Enameled Glass
Syrian, Late XIII Century

practised under the Sasanid dynasty, should have disappeared either in Mesopotamia or in Persia. Illuminations of a manuscript made at Bagdad in 1235 show glass bottles, lamps, and cups with gilt and enameled decoration which are probably local products. There are also a few literary references to the manufacture of glass in Irak.

Two pieces in our collection of the type described above are probably Mesopotamian or Syrian in origin. A capital piece is the large standing cup (fig. 117) in the Moore Collection (formerly in the Schefer Collection), decorated with an enameled inscription and three narrow bands painted in gold with designs representing seated figures and hounds pursuing wild animals. The eagle, occurring in four medallions on the bowl, is too common a badge to permit an identification of the owner of the cup, which, judged from the style of the decoration, appears to be a work of the thirteenth century and Mesopotamian or Syrian in origin. Of the Syro-Mesopotamian goblets we have a characteristic example. This piece, which may be assigned to the thirteenth or fourteenth century, is cylindrical in form and has a flaring rim; it is decorated with an ornamental band of floral forms in colored enamels and a repeating pattern of gilded fish outlined in red.

The largest and best-known class of Near Eastern enameled glass is composed of about three hundred mosque lamps and fragments and a small number of other pieces such as cups, basins, plates, etc., related in style to the lamps. The glass is either yellowish white or slightly tinged with green and is usually filled with bubbles. Two examples of blue glass are known, both of which are in our collection. The colors of the enamels are white, red, blue, green, yellow, and rose. Gold is liberally used in the enrichment of the decoration, which consists principally of inscriptions — passages from the Koran, expressions of good will, and the names of sultans and amirs

Fig. 119. Mosque Lamp, Enameled Glass
Syrian, XIV Century

— and floral motives such as the peony, lotus, and rosette. With few exceptions, these mosque lamps and related pieces date from the fourteenth century.

Glass is known to have been made in Egypt under the Mamluks; but, although the names of Mamluk sultans and amirs frequently occur in the inscriptions upon the glass we are considering, it seems more probable from the evidence available that this enameled glass was made in Syria rather than in Egypt. Numerous texts establish the fact that the manufacture of glass flourished in such cities as Aleppo, Tyre, and Damascus. As Syria at this time was a political dependency of Egypt, intercourse between the two countries was constant, and the transportation of even such fragile objects as glass offered no insurmountable difficulty. If, as we believe to be the case, the enameled glass made for the sultans of Egypt and Yemen and their high functionaries was manufactured in Syria, then the Mongol invasions of this country offer an explanation of the decline and final cessation of the craft after the close of the fourteenth century. When Timur took Damascus in 1400, he is said to have transplanted to his new capital at Samarkand a great number of Syrian craftsmen, including glass-workers.

Whatever may be the reason, enameled glass of the late fourteenth century is greatly inferior both in design and execution to the earlier productions. A few pieces assigned to the fifteenth century show the complete decay of the art.

Our collection of enameled glass mosque lamps and other pieces of similar character is surpassed in number only by the collection in the Arab Museum at Cairo. Eleven pieces came to our collection in 1891 through the bequest of Edward C. Moore. The gift of the Morgan Collection in 1917 added seven more. A gift from Mr. and Mrs. V. Everit Macy in 1923 brought the total number to nineteen. Of these pieces, thirteen

Fig. 120. Mosque Lamp, Enameled Glass
Syrian, XIV Century

are mosque lamps; two, standing cups; one, a vase; one, a ewer; one, a basin; and one, a plate or circular tray. The collection includes one of the two pieces known with a maker's signature and two unique mosque lamps of blue glass. Seven of the mosque lamps bear the names of sultans or high officials.

The earliest of the lamps (fig. 118) is inscribed: "Of the objects which were made for use in the mausoleum of the noble al-Alai al-Bundukdar." The Amir Aidakin al-Bundukdar died in 1286. This lamp may therefore be assigned to the late years of the thirteenth century. It is believed to be one of the two examples of enameled glass which are surely earlier than the fourteenth century. The other is a bottle in the Arab Museum, Cairo, catalogue number 4261, inscribed with the name of Malik Nasir Yusuf, Ayyubid sultan of Damascus and Aleppo, who died in 1260. Our lamp is somewhat more elaborately decorated, with two wide bands of inscriptions instead of one, and with large medallions inclosing a badge composed of two bows bound together.[3]

The inscriptions on one of the blue glass mosque lamps (fig. 119), previously mentioned, refers to a Mamluk sultan, but unfortunately the designation is not absolutely precise. The inscription reads: "Glory to our Lord the Sultan, the King, al-Muzaffar [the Triumphant], the Wise, the Just, the Column of the World and of Religion; Allah give him victory." This sultan is presumably Baibars II, who reigned from 1308 to 1309, although Muzaffar Hajji (1346-1347) is not out of the question. The elaborate and finely executed floral and arabesque decoration on this lamp suggests, however, the earlier date. The other blue glass mosque lamp in our collection, presumably made at the same time, is richly decorated with floral

[3] Other devices (a cup, an eagle, a flower, dice, etc.) occur on Syro-Egyptian enameled glass and incrusted metalwork. They are badges of office or insignia of distinction, but not arms in the European sense, as they were not hereditary.

Fig. 121. Mosque Lamp, Enameled Glass
Syrian, XIV Century

motives and with an inscription repeating six times the complimentary phrase, "The Wise."

A lamp bearing the name of Ahmad al-Mihmandar may be dated around the year 1325, when the mosque in Cairo was built by this amir. A few years later in date is a lamp with an inscription stating that it was made by order of the Amir Saif ad-Din Kusun (fig. 120). It comes presumably from the mosque built by Kusun in 1329, and is probably of about this date. An inscription on the foot of this lamp reads: "Made by the slave Ali, son of Mahmud." Two wide bands of Kufic inscriptions and medallions, inclosing a cup badge, constitute the principal decoration of this important piece.

Two lamps bear the name of Sultan al-Malik an-Nasir, who reigned, with interruptions, from 1293 to 1340. On the foot of one lamp is an inscription stating that it is the property of the Monastery of el-Kerimi in the Cemetery of el-Karafa at Cairo. On the other (fig. 121) the name and title of the king are inscribed in three medallions; others inclose a cup badge, and the main field is covered with large floral motives.

Made by the order of the Amir Saif ad-Din Shaikhu, who died in 1356, is a handsome lamp with two wide bands of inscriptions. Another lamp of the first half or middle of the fourteenth century is inscribed with the titles, but not the name of an amir.

Two other lamps, whose ornament is larger in scale and coarser than that of the earlier examples, may be assigned to the second half of the fourteenth century. Dating from the close of the fourteenth century is a lamp with an inscription in praise of Sultan az-Zahir Abu Said (1382-1398). The poverty of design, the flaccid epigraphy, and the hasty execution reveal the decay which had overtaken the art of glass enameling. To this period (the close of the fourteenth century)

Fig. 122. Standing Cup, Enameled Glass
Syrian, XIV Century

may be assigned a lamp which is unusual in that it is made of a milky, opaque glass of greenish tint. The enamel decoration has no artistic interest and shows us the art in full decline; enameling on glass ceased to be practised after the fifteenth century.

Mosque lamps do not constitute the sole work of the Syrian glass enamelers, although they are far more numerous than pieces in other forms. It is reasonable to suppose, however, that the glass intended for domestic use was more subject to accident than the gift lamps piously preserved in mosques, and for this reason examples of the former survive in smaller numbers. We are fortunate, therefore, in possessing an unusually representative group of this rare enameled glass in the form of cups, basins, vases, ewers, and trays.

The large cup in the Moore Collection, decorated with narrow bands of animals, has already been mentioned (p. 190). Another standing cup (fig. 122) used for drinking, or perhaps to hold sweetmeats, was given to this Museum in 1923 by Mr. and Mrs. V. Everit Macy. The intricate, lacy decoration of floral motives, disks with the eagle badge, and repeated complimentary inscriptions recall the mosque lamps of the fourteenth century, to which date it may be assigned.

A dish or circular tray with a low, vertical rim is decorated with an intricate pattern of five tangent medallions of strapwork motives on a field of arabesques. This magnificent piece may be assigned to the fourteenth century. Evidently of the same date and workmanship as the fourteenth-century mosque lamps are a ewer and a vase. The latter is particularly graceful in form. The decoration of both pieces would indicate a date around the middle or second half of the fourteenth century. A large basin is ornamented with a broad band of inscription interrupted by three large rosettes. The inscription reads: "Glory to our Lord the Sultan, the King, the Wise." Unhap-

pily, the sovereign is not named, but the style and quality of workmanship seem to indicate a fairly late date in the second half of the fourteenth century.

In concluding these paragraphs on enameled glass, it should be noted that the Mamluk sultans and their officials were not the sole patrons of the glassworkers. A few examples have inscriptions which show that glassware of this type was made for the Rasulid sultans of Yemen. One example dates from the last years of the thirteenth century. Others correspond in style to the fourteenth-century Mamluk specimens.

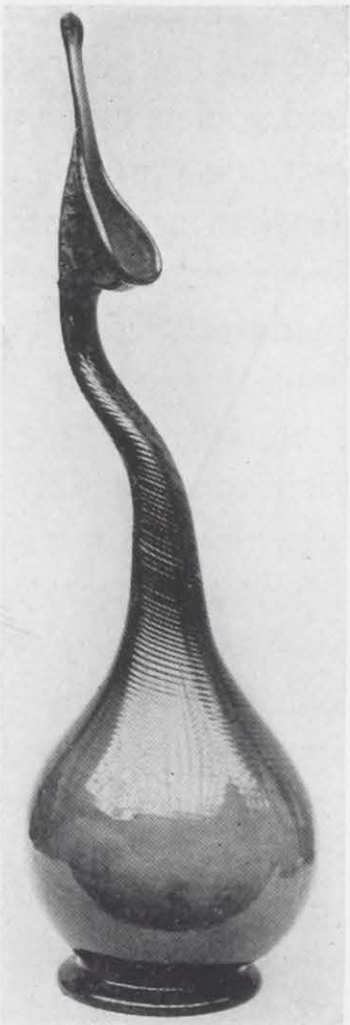


Fig. 123. Bottle
Persian, XVII-XVIII
Century

3. *Persian Glass from the XVII to the XIX Century*

Sir John Chardin, who was in Persia at various times between 1666 and 1677, states in his *Travels* that the art of glass making was brought to Persia early in the seventeenth century — "A Beggarly and Covetous *Italian* taught it at *Chiras*, for the Sum of fifty Crowns."[4] Chardin further records that "The Glass of *Chiras* is the finest in the Country; that of *Ispahan*, on the contrary, is the sorriest, because it is only Glass melted again."[5] The superiority of Shiraz is confirmed in the writings of other travelers. In the middle of the eighteenth century the civil wars that followed the death of Karim Khan (1753-1779) and the removal of

[4] *Sir John Chardin's Travels in Persia* (London, 1927), p. 275.
[5] *loc. cit.*

the seat of government from Shiraz gave a mortal blow to the prosperity of the city. In the early nineteenth century, however, glass making was still "prosecuted with sufficient diligence and success," as we learn from the *Travels*[6] (1817-1820) of Sir Robert Ker Porter, who notes that window-glass, bottles, and goblets made at Shiraz "though not of the most elegant sort, are vendable all over the kingdom." The importance of Ispahan as a manufacturing center ended with the Afghan invasions in the early eighteenth century. Glass is still being manufactured in Persia at the present day.

Of this Persian glass, the Museum owns a large and representative collection, including bottles, ewers, and vases in various forms, mainly of the eighteenth and nineteenth centuries. The glass is white, amber, violet, green, or blue in color. Some pieces are decorated with painting and gilding; others have simple moulded ornament. The painted and gilded decorations are coarsely executed as a rule, and the most attractive specimens are those that depend solely on beauty of form and the color of the glass for their effect (fig. 123).

4. *Glass in Spain*

Glass was made in Spain during the Arab domination of that country, as we learn from texts which refer to sites and materials employed. No specimens, however, of this primitive Moorish glass have come down to us, but the later glass wares of Almería and other towns in the province of Granada show marked Arab characteristics, which represent, no doubt, a survival of the earlier tradition.

5. *Window-Glass*

Excavations at Samarra have yielded evidence that glass was used in the house windows of this ninth-century Mesopota-

[6] *Travels in Georgia, Persia, Armenia, Ancient Babylonia, &c., &c.*, vol. I, p. 714.

mian city. One method of glazing was to use circular disks from about eight to eighteen inches in diameter. In another, small pieces of colored glass were set in plaster panels pierced to form a pattern. This latter type of glazing may have been borrowed from Byzantium, as it is probable that the pierced marble plates set in the windows of Byzantine churches were originally filled with glass.

In Egypt, plaster frames filled with small pieces of glass were used in windows at an early date. Among the most ancient examples are those in the Mosques of Ibn Tulun and Baibars and the Maristan of Kalaun. Colored glass does not appear to have been used for windows in Egypt before the second half of the thirteenth century. In our collection there are several beautiful examples of fifteenth- or sixteenth-century Egyptian plaster window panels set with colored glass. The patterns show the typical decorative motives of this period — flowers symmetrically disposed in a vase, cypress trees, arabesques, inscriptions, and so forth. Windows of this type have continued popular in Egypt and Syria up to the present day.

Chapter XII. Textiles

Representative textiles and embroideries in Gallery H 20; others in Near Eastern galleries; the bulk of the collection in the Textile Study Room

The Mohammedan conquest of Syria, Persia, and Egypt brought the Arabs into contact with the art of weaving in a highly developed form. In Egypt, long renowned for its textiles, the Copts, in the Roman and Byzantine periods, brought to perfection the art of tapestry weaving in undyed linen and polychrome wool. In Persia, under the Sasanids, the weavers produced beautiful silk fabrics with representations of hunting scenes and of various animals. These textiles were exported to other Oriental countries, where they greatly influenced the local production. In the early Mohammedan period textiles were still made in the style and technique of the earlier Coptic and Sasanian weaves; but gradually, in the late tenth century, a true Mohammedan style was developed. This later style spread over all the countries under Arab rule, and therefore it is often very difficult to determine where these fabrics were woven, unless there are inscriptions or other direct evidence upon which to form a judgment.

1. *Egypto-Arabic Textiles*

The conquest of Egypt by the Arabs in 641 wrought but little change in the life of the native Christians, or Copts. The Copts were great craftsmen, and as such were liberally employed by the Arabs in building mosques and palaces and in

the newly established manufactories. The Arabic textiles of Egypt became famous all over the Mohammedan world. An embroidered inscription in red silk on a linen fragment of the ninth century, found at Samarra, indicates Tinnis, near Port Said, as the place of manufacture. Such fabrics were made for the Abbassid caliphs in state manufactories, or *tiraz*, which were supervised under the Fatimids by a director-general. Tinnis was renowned for several kinds of fabrics, such as *kasab*, a very fine linen used for turbans; *badanah*, a fabric used for the garments of the caliphs; and *bukalimun*, a fabric with changing colors, used for saddle-cloths and for covering royal litters. Nasir Khusru, a Persian traveler of the eleventh century, tells us that the products of the royal looms at Tinnis were reserved for the sovereign of Egypt, and could be neither sold nor given to any one else. Tinnis, however, was not the only place where fabrics were woven. Dabik was famous for its silks. White *kasab* was made at Damietto. Other manufactories are known to have existed at Alexandria and Cairo. Arabic textiles were also made in Upper Egypt, for example, at Assiut, and at Akhmim, which had been an important weaving center during the Coptic period.

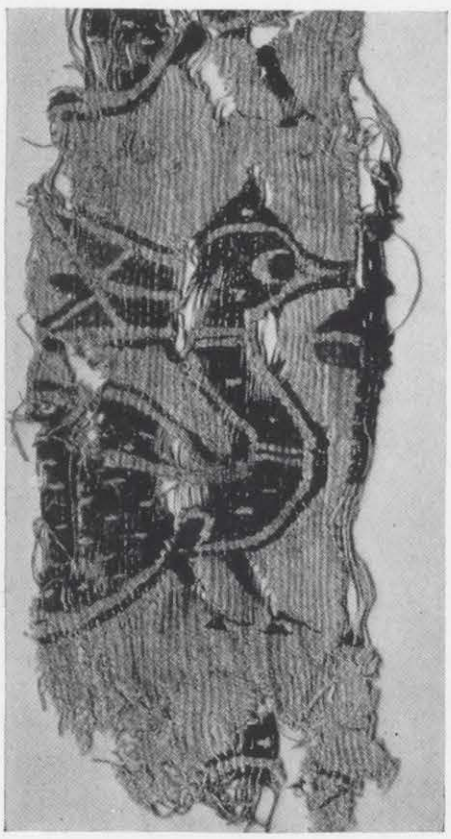


Fig. 124. Tapestry Weave, Fragment Egypto-Arabic X-XI Century

The Arabic textiles of Egypt have been found at various sites. A great number come from El-Azam, near Assiut; others,

from Drunka, Akhmim, and the rubbish heaps of Fustat, or Old Cairo. The usual technique is that of tapestry weaving, with linen warp and weft of silk or wool. Some fabrics are woven entirely of silk. The decoration may be woven, embroidered, or, more rarely, printed.

A. Textiles Tapestry-woven in Polychrome Wool and Linen (VIII to XI Century)

The Coptic weaver's favorite technique for the decoration of

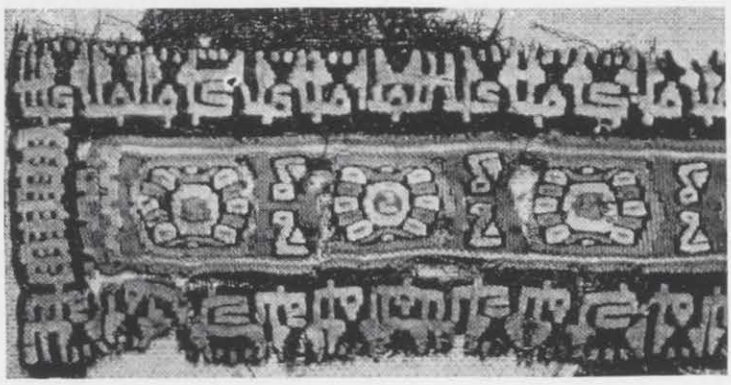


Fig. 125. Tapestry Weave (Detail)
Egypto-Arabic, IX Century

cloth was the tapestry process, and the preferred material was wool. The method of weaving allowed great freedom in pictorial composition. The style and technique of Coptic weaving, which achieved its highest development in the sixth and seventh centuries, continued under the rule of the Arabs.

In our large collection of Egypto-Arabic textiles of various periods, found at Fustat, are several specimens of polychrome tapestry weaving in wool on a linen warp. A notable piece of about the ninth century, unusual in size and beauty, is seen in figure 125. It is a portion of a black woolen scarf or shawl, decorated with four bands of various widths, tapestry woven in polychrome wool and linen. The main ornament consists of cross motives, S-motives, and birds in hexagons in white,

yellow, and black on red, bordered by a Kufic inscription in white on black. Another band shows a pattern of human figures, animals, birds, and rosettes in hexagons. The color scheme and the stylized, geometrical rendering of the figures show analogies to late Coptic textiles.

Of somewhat later date are three fragments with large figures of birds. The best-preserved piece shows two peacocks in

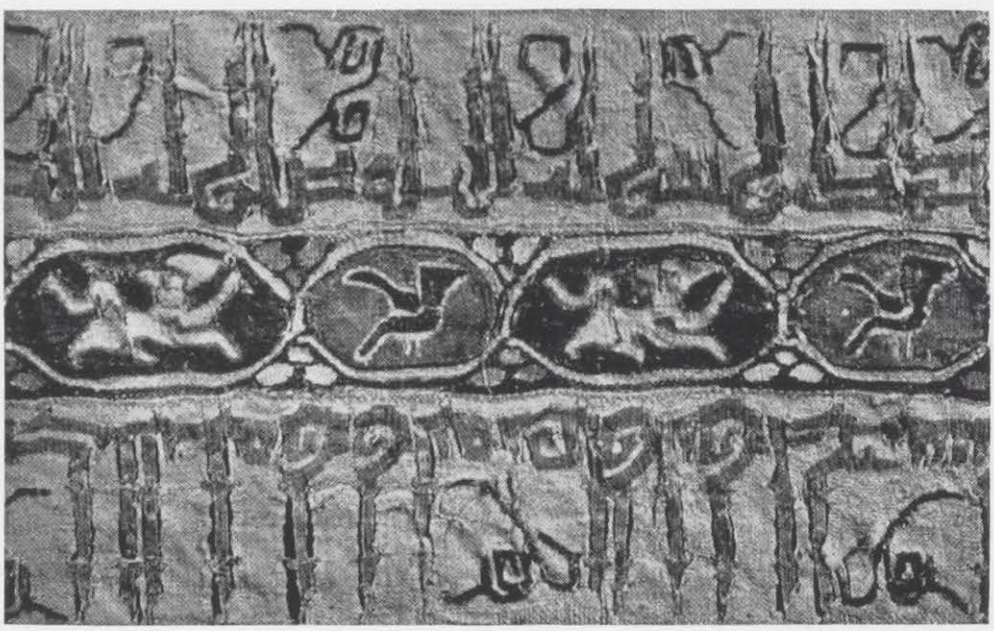


Fig. 126. Silk Tapestry Weave, Fragment
Egypto-Arabic, End of the X Century

dark brown wool on a white ground (fig. 124). The neckbands, as well as the general design, recall Sasanian examples, but the Kufic characters (of which only portions remain) and the style of the drawing point to the early Fatimid period (tenth to eleventh century) as the date of this fragment.

B: Textiles Tapestry-woven in Polychrome Silk and Linen (IX to XIV Century)

In the majority of Egypto-Arabic textiles the weft is of silk, while the warp threads are of fine linen, undyed or in blue of various shades. By uneven and partial dyeing of the warp

threads a very decorative marbled effect is often achieved. The fineness of Arabic silks was greatly admired by ancient travelers, who said that the texture of Cairene fabrics was so fine that a whole robe could be passed through a finger ring. The decoration of these silk fabrics consists of human figures, animals, birds, arabesques, and Arabic inscriptions. Although frequently the inscriptions either have no meaning or merely repeat pious or congratulatory phrases, certain specimens bear dates and the names of sovereigns. Other criteria in dating are the style of the ornament and the character of the Arabic script.

In the Tulunid period (ninth century) Coptic tradition was still closely followed in the design of these tapestry-woven silk textiles. A fragment in our Museum is decorated with medallions containing conventionalized animals and birds and with floral devices in white, yellow, blue, green, and red on a red ground. Another silk tapestry with Kufic inscriptions and an animal decoration, Coptic in style, is in the Victoria and Albert Museum, London, and may be attributed to the ninth century. Other silk tapestries of this period are in the Arab Museum, Cairo, in the Kaiser Friedrich Museum, Berlin, and in the Brussels Museum. The decoration of these fabrics is either in the traditional Coptic manner or in the new Tulunid style.

By the end of the tenth century the style of the Fatimid period was already apparent. There was a tendency to rounded, graceful outlines, and more subdued colors, though the vigorous Coptic color schemes were not wholly abandoned. A popular pattern consists of rows of animals, single or in pairs, inclosed in oval medallions which are often interlaced. A beautiful example (fig. 126) of this type, inscribed with the name of the Fatimid caliph, Al-Aziz Billah (975-996), is in our collection.

A type of eleventh-century weaving in the fully evolved Fatimid style is that characterized by a pale color scheme,

with a golden tone predominating in the ground. The tapestry-woven strips are ornamented with interlaced bands — sometimes as many as five or six — inclosing small animals or birds. An important fragment (fig. 127) in our collection is decorated with interlacing bands inclosing gazelles and birds within circles. The design of this piece is in the best Fatimid style, and may be assigned to the middle of the eleventh century.

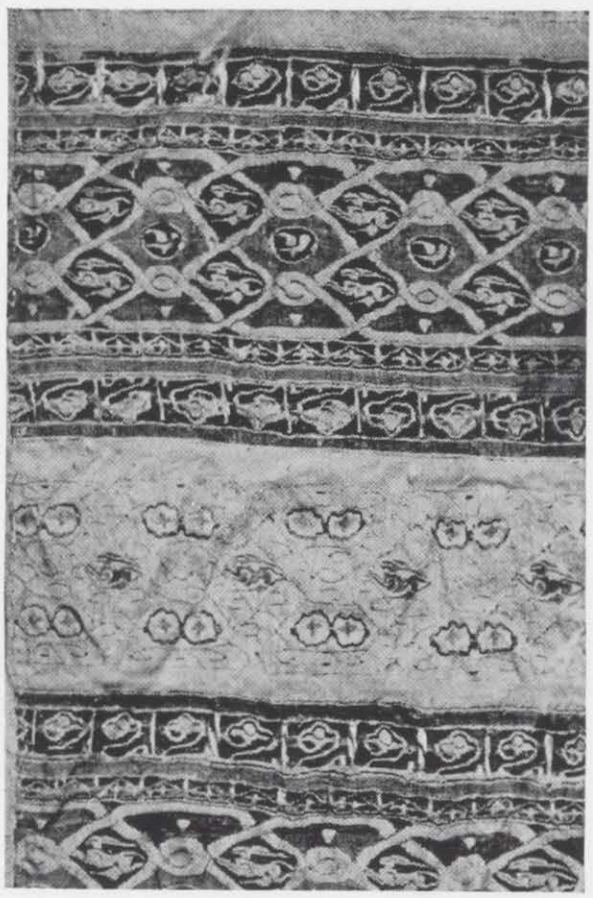


Fig. 127. Silk Tapestry Weave (Detail). Egypto-Arabic XI Century

The patterns of the eleventh century continued popular in the twelfth, but Naskhi characters, often meaningless, tend to replace the earlier Kufic letters in the inscriptions. The colors are usually pale, but sometimes a deep blue predominates. In several twelfth-century pieces, the Naskhi characters are ingeniously combined with the arabesque motives forming the background.

A number of tapestry-woven stuffs are assigned by Kühnel to the Ayyubid period (1168-1250). They show late Kufic inscriptions, the letters often ending in palmettes, on a background of linear scrolls.

In the following, Mamluk period, during the thirteenth and fourteenth centuries, tapestry weaving was still practised with great skill. A remarkable piece in this Museum is illustrated

in figure 128. The peony palmettes and naturalistic leaves are similar in style to the ornament occurring on Mamluk metalwork of the early fourteenth century. The colors are white, tan, light brown, light blue, and black; gold and silver are also liberally used.

C. Egypto-Arabic Embroideries

The earliest known Arabic embroidery occurs on a silk fragment in the Victoria and Albert Museum, which is embroidered in yellow with an Arabic inscription, containing the name of the commander Marwan. According to Guest, this name places the fabric between 684 and 750. An important linen fragment in this Museum has an Arabic inscription embroidered in red silk; the inscription contains the name of the Caliph al-Mutadid (892-902) and the date 895. A linen fragment with an identical inscription is in the Victoria and Albert Museum.

Linens of the Fatimid period with embroidered inscriptions are also known. A characteristic specimen in our collection is embroidered in blue silk with a Kufic inscription on a background of floral scrolls.

Another group of polychrome embroideries in a running or chain stitch, with Naskhi or Kufic inscriptions, is assigned by Kühnel to the twelfth century. Dating from the twelfth and thirteenth centuries are other embroideries in polychrome silk showing pairs of animals or birds separated by trees. A linen cushion cover in the Victoria and Albert Museum is embroidered with lozenges inclosing seated human figures, lions, peacocks, birds, and other motives; it is assigned by Kendrick to the thirteenth century. Two pieces of similar type in the Cooper Union Museum are decorated with arboreal motives and illegible inscriptions. In this Museum there is a portion of linen cloth dyed green and embroidered with a double row of Kufic

characters in orange silk; it also may be dated in the thirteenth century.

In the embroideries of the Mamluk period (1252-1517) the designs are usually angular in character, owing to the technique employed. This is a running stitch in steps, sometimes called the Holbein stitch. Often the stitches follow the direction of the weft, giving the appearance of weaving.

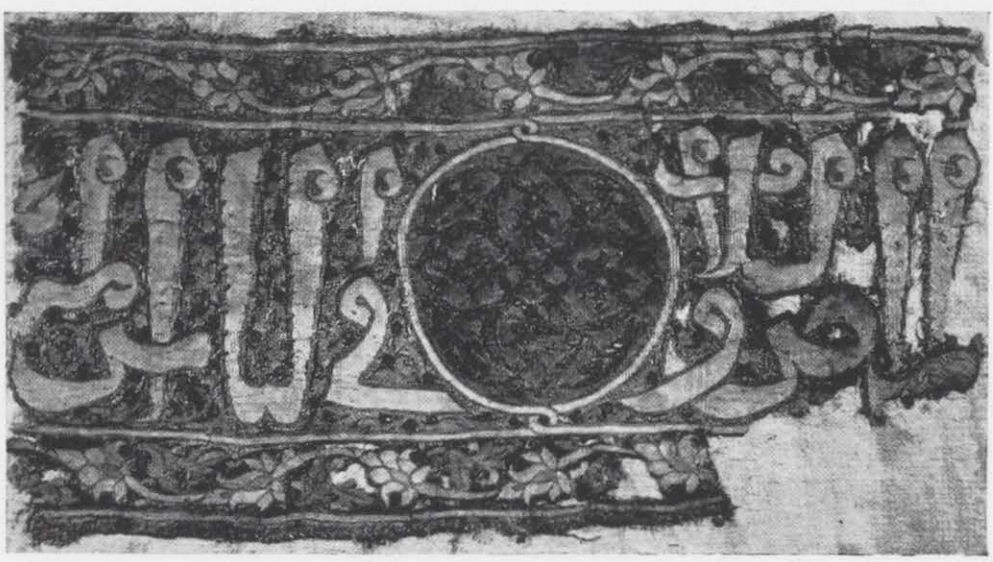


Fig. 128. Silk Tapestry Weave
Egypto-Arabic, about 1300

2. *Egyptian and Syrian Woven Silk Fabrics*

In the silk stuffs now to be considered, the entire fabric is woven with a shuttle on a draw-loom, in contradistinction to the tapestry-woven silks previously mentioned, in which the weft threads of the pattern are introduced with a bobbin or needle.

In the course of their history, Syria and Egypt were frequently united under the same rulers, and this political unity often led to an interchange of influences in the field of art. On the whole, it is probable that Syria gave more than it received. It is therefore not unlikely that some of the textiles found in Egypt were made in Syria.

Probably of the Fatimid period is a woven silk fabric in Brussels, decorated with rows of confronted birds separated by palmette devices and bearing on their wings Arabic inscriptions expressing good wishes. The coloring is unusual, as the fabric is divided into horizontal bands of blue, purple, yellow, and red without any relation to the design. In style this fabric recalls some of the lustred ceramics of the eleventh or twelfth century found at Fustat, and it may be similarly dated. It is quite possible that the silk was woven in Egypt.

Both Mohammedan and Chinese motives occur on silk fabrics of the Mamluk period in the thirteenth and fourteenth centuries. Of Egyptian or Syrian origin is a beautiful silk fabric in our collection, woven in green and buff, with compartments formed by alternate bands of birds and winged griffins separated by palmette trees (fig. 129). Fragments of the same stuff were found at El-Azam in Egypt. The linear character of the design is especially noticeable in the drawing of the two griffins, whose wings and extremities are stylized into scrolls and palmettes. Similar in style is a fragment of pottery in the Arab Museum at Cairo, decorated in lustre with a griffin motive. The absence of Chinese motives in the fabric just described and the arabesques in the form of palmette trees suggest the thirteenth century as the probable date.

Textiles in the Chinese style belong to the fourteenth and fifteenth centuries. A number of silk fabrics from church treasuries, now in the Kunstgewerbe Museum of Berlin and the Victoria and Albert Museum, London, bear the name and titles of Nasir Muhammad ibn Kalaun, the Mamluk sultan of Egypt and Syria, who reigned from 1293 to 1340. The patterns of these fabrics are influenced by the Chinese textiles which were known at that time in the Near East.

The titles of Mamluk sultans of Egypt and Syria occur also on several specimens of brocade in silk and gold. A well-

known piece is in Saint Mary's Church, Danzig. Pairs of parrots and Chinese dragons inscribed with the title "an-Nasir" are woven with flat strips of gilded leather on a black silk ground. The inscription presumably refers to Nasir Muhammad ibn Kalaun. Other important brocades in the Chinese style are a chasuble and a cope in the same church, and two

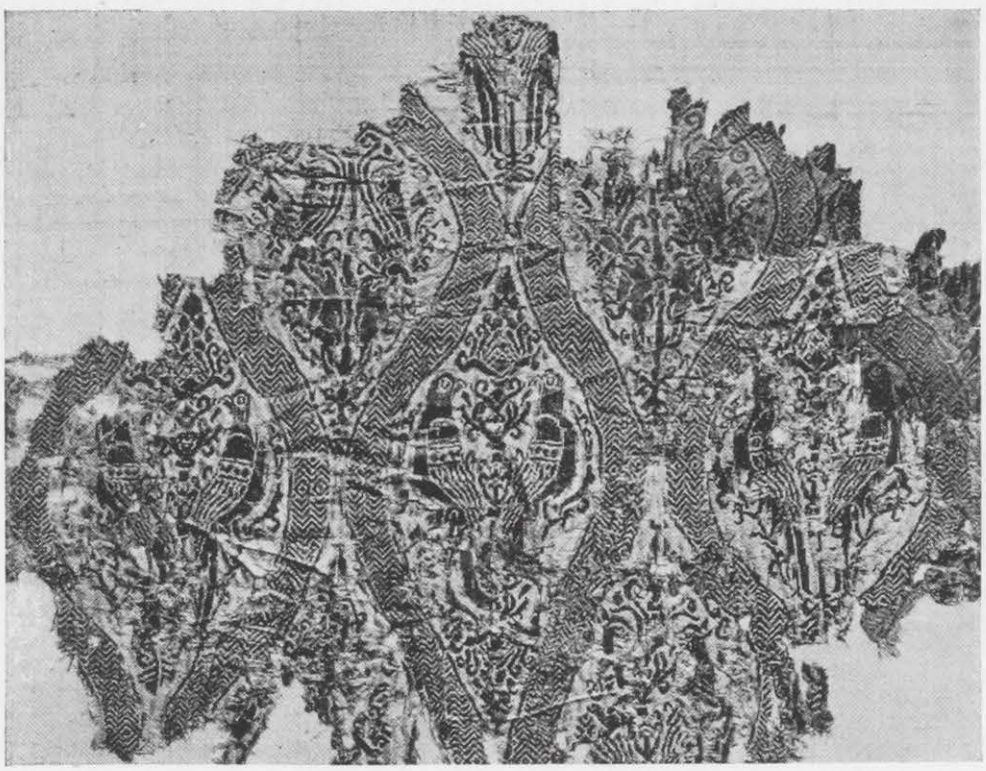


Fig. 129. Silk Weave
Egypto-Syrian, XIII Century

dalmatics in the Regensburg Cathedral bearing the name of the maker, "Master Abd al-Aziz." These brocades have been attributed by Falke and Kendrick to the looms of China or Central Asia, where they may have been woven by Mohammedan craftsmen for the sultans of Egypt.

3. *Persian Textiles from the VIII to the X Century*

Persian textiles of the beginning of the Mohammedan era continue the early Sasanian style of decoration. Sasanian textiles of the sixth and seventh centuries are often decorated with me-

dallions inclosing hunting scenes, stylized birds, and griffins. The motives appear singly or in pairs, symmetrically arranged, and woven in two or more colors. A rare Sasanian fabric of about the sixth century, found in Egypt, may be seen in this Museum. It shows within a medallion a duck holding a jeweled necklace in its beak. The bird's neck is adorned with streaming ribbons, a characteristic motive of Sasanian art that remained popular in the early Mohammedan period.

To the period between the seventh and ninth centuries are ascribed the sudarium of Saint Victor and a fabric with a design of elephants, both at Sens. A large piece of the latter textile is in the Cooper Union Museum in New York. The style and color scheme of these silk fabrics, which were probably woven in western Persia, is strongly Sasanian.

A distinctive group of Persian silk textiles of the early Mohammedan era is characterized by angularly rendered animals of Sasanian type. The best-known specimens are the so-called sudarium of Saint Columba, ornamented with lions, in the Vatican; a similar stuff at Nancy; a fabric with peacocks and another with horses at Sens. Similar textiles were unearthed by Sir Aurel Stein in the caves of the Thousand Buddhas at Tun-huang in Chinese Turkestan. Stein is of the opinion that they were woven in Sogdiana, western Turkestan, of which the cultural centers were Samarkand and Bokhara. In western Turkestan or in Khorasan was woven the silk fabric from the Church of Saint Josse-sur-Mer (Pas-de-Calais), now in the Louvre. It is decorated with large confronted elephants, bordered by rows of small camels and peacocks, reminiscent of Sasanian motives. In the Mohammedan style are the arabesque scrolls and the Kufic inscription giving the name of Amir Mansur Nujtakin of Khorasan, who died in 961. The piece may thus be dated with certainty to the middle of the tenth century.

4. *Textiles of Persia, Mesopotamia, and Asia Minor (XII and XIII Centuries)*

During the twelfth century there is a noticeable change in the style of Persian ornament, owing to influences coming on the one hand from Mesopotamia and Syria, and on the other, from Central Asia, the home of the Seljuk tribes who invaded Persia in the tenth and eleventh centuries. The traditional Sasanian style is replaced by one in which arabesque motives of Mohammedan origin are combined with linear scrolls and palmette forms derived from the Far East through Central Asia. Of this type is a green and white silk fabric with confronted griffins, portions of which are in the Kunstgewerbe Museum and in the Servatiuskirche in Maastricht, and a black and white stuff with pairs of eagles, said to have come from Tabriz, and now in Berlin.

Literary evidence indicates that silk fabrics were also woven in Bagdad at an early period. Marco Polo, writing in the thirteenth century, mentions silk fabrics and gold brocades woven in Bagdad and Mosul. In the Colegiata de San Isidoro at León, Spain, there is a silk fabric with a design consisting of birds, elephants, and various other animals, Persian in style, and bearing a Kufic inscription which shows that it was woven in Bagdad, probably in the twelfth or thirteenth century. Silk fabrics were also manufacured in the Seljuk empire of Asia Minor. A thirteenth-century gold brocade in the museum at Lyons[1] is decorated with lions and inscriptions containing the name of Sultan Kai-Kobad of Konia (either Kai-Kubad I [1219-1237] or Kai-Kubad II [1246-1257]).

5. *Persian Textiles of the XIV and XV Centuries*

In Persian silks of the fourteenth and fifteenth centuries, of which very few are known, the ornament is often strongly Chi-

[1] Musée historique des tissus.

nese in character. Under the rule of the Mongols, the demand for Chinese fabrics was so great in Persia that Chinese motives were imitated by native weavers. Among these are the dragon, phoenix, *kilin,* and floral ornaments such as the peony and the lotus. Occasionally these motives are combined with others of Mohammedan tradition.

6. *Persian Textiles from the XVI to the XVIII Century*

The art of silk weaving in Persia reached its height in the sixteenth century, under the shahs of the Safavid dynasty. Technically, Persian silks may be divided into two groups: silk brocades and silk velvets. Both varieties are woven in colored silks, quite frequently with the addition of silver or silver-gilt threads. Such fabrics were used for garments, hangings, and covers, and often served as gifts from the shahs to those whom they wished to honor. The decoration consists of figure subjects, animals, birds, and floral motives. The figure subjects are taken for the most part from the great Persian epics, such as the *Shah-namah,* or from the romantic poems of Nizami. Others depict Persian nobles hunting or enjoying the pleasures of life in their gardens.

A beautiful example of a sixteenth-century Persian silk brocade is illustrated in plate IV. The repeating design shows a Persian youth with a bottle and cup, standing in a rocky landscape among cypresses, peach-trees, animals, and birds. Also of the sixteenth century is a magnificent silk velvet (fig. 130), the gift of V. Everit Macy, which served with other panels for the interior decoration of a tent. The design represents Iskander (Alexander) killing a dragon with a rock. The colors are wine red, light green, dark blue, light and dark tan, and black on a background of thin, gilded silver strips. In the Armory of Moscow there is a coat of silk brocade deco-

Fig. 130. Silk Velvet. Persian, XVI Century

rated with the same subject, woven in polychrome silk on a blue background. A fragment of another sixteenth-century brocade in this Museum represents a seated man to whom an attendant offers fruit; it is woven in rich colors on a white background. The Cooper Union Museum possesses two fragments of a silk brocade relating the story of Laila and Majnun. One shows Laila, in a litter on the back of a camel, looking down on Majnun, who is surrounded by animals. This piece is of special importance as it bears the signature of the maker, Ghiyath. The other fragment depicts Laila approaching Majnun, who is holding a gazelle. The same subject appears in a rare sixteenth-century velvet in red and green which is in the Wielich Collection in New York. A noteworthy specimen of the same date, in Rosenborg Castle at Copenhagen, is decorated with very large figures (about 20 inches in height) of a prince and his attendant. Many of the figures in these silks resemble in style the paintings by Sultan Muhammad.

Fig. 131. Silk Weave
Persian, Dated 1599-1600

Other silks are ornamented only with floral designs, either naturalistic or stylized. Persian miniatures of the sixteenth century often show garments made from silk brocade of this type. A panel of silk velvet[2] in our collection is decorated with palmette devices within ogival compartments, combined with tulip and rosette motives on a gold background.

[2] From the same tent decoration as the velvet shown in figure 130.

Under Shah Abbas the Great (1587-1628), a noble patron of all the arts, the weaving of costly fabrics, brocades and velvets, continued to be practised with great skill. In addition to the long established looms of Yezd and Kashan, Shah Abbas founded other manufactories, especially in Ispahan,

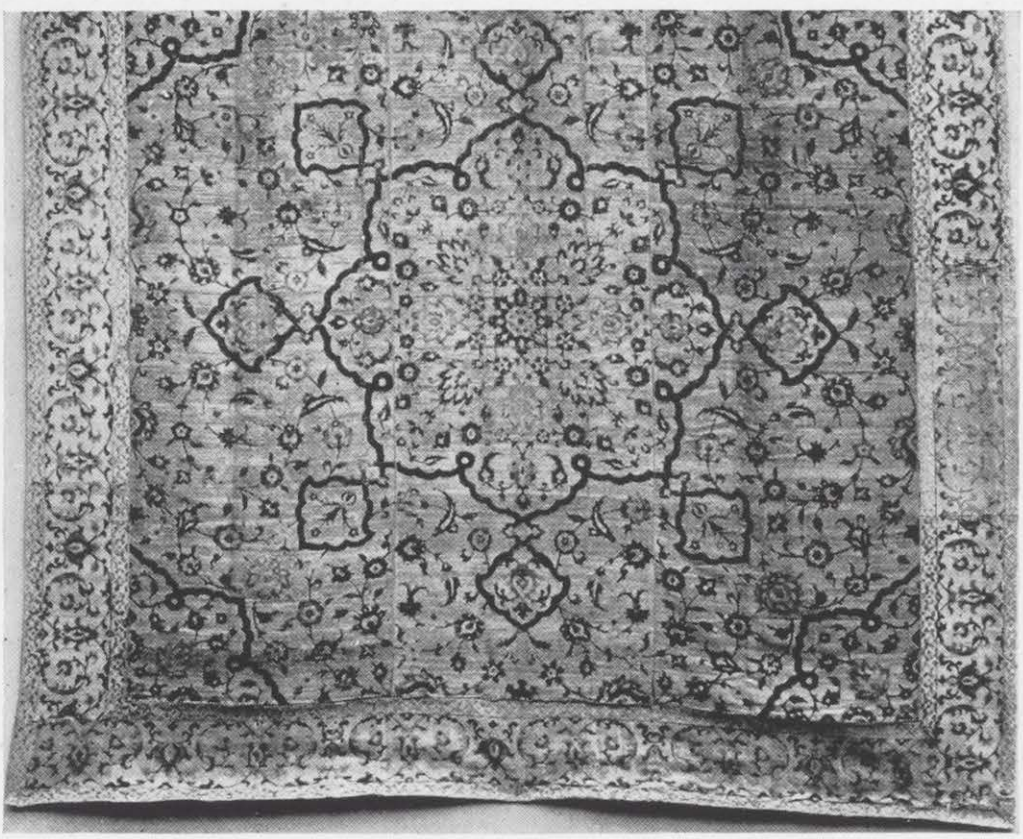


Fig. 132. Velvet Carpet (Detail). Persian, about 1600

where luxurious fabrics and those for daily use were woven. This Museum is fortunate in possessing two small fragments of a silk fabric of the Shah Abbas period that give both the name of the weaver and the date (fig. 131). The brocade depicts a garden scene with a lady holding a cup, while her lover offers her a bowl of fruit. The wine bottle is inscribed in Persian: "1008 [1599-1600] made by Yahya [?]." Only four other names of weavers in the sixteenth century are known: Ghiyath, Abdallah, Ian Muhammad, and Muizz ad-Din, son of Ghiyath. The scarcity of dated brocades enhances the impor-

tance of our fragments, which show all the characteristics of the Shah Abbas period, such as tendencies to more subdued colors and to a more realistic drawing of figures and draperies than was favored in the period of Shah Tahmasp. Also of the Shah Abbas period, probably prior to 1639, is the velvet used to cover the walls in the room of Christian V in Rosenborg Castle, Copenhagen; it is ornamented with garden scenes and floral designs.

Fig. 133. Silver Brocade
Persian, XVII Century

A masterpiece of the Persian looms of the Shah Abbas period is the large carpet of silk velvet (fig. 132) now in our collection. It was formerly in the possession of the royal house of Saxony, to which it had belonged since the end of the seventeenth century. The carpet is composed of three separate strips. The design consists of two large, eight-pointed medallions and of segments of similar figures. The field, as well as the medallions, is richly ornamented with delicate flower and stem motives on a gold ground. The border design is developed on a silver ground. This beautiful velvet carpet was probably made at the Ispahan looms, and may be assigned to about 1600.

New floral motives, naturalistic in style, became popular around the beginning of the seventeenth century. An unusually fine gold and silver brocade of this kind, forming the border (incomplete) of a large cover, is shown in figure 134. It is anal-

ogous in style to the fabric in the Armory at Moscow, which incorporates in its design the Lion of Saint Mark and was presumably a gift from the Shah of Persia to the Doge of Venice. A late seventeenth-century brocade in our collection is pat-

Fig. 134. Gold Brocade
Persian, about 1600

terned with floral scrolls interspersed with birds (fig. 133); the ground is of silver. In Persian brocades of the eighteenth and nineteenth centuries small motives prevail, and there is a general lack of artistic originality.

7. *Persian Embroideries and Printed Cottons*

Although the art of embroidery was known in Persia in early times, there are few existing specimens earlier in date than the

sixteenth century. In this Museum are many examples of Persian embroidery dating from the seventeenth, eighteenth, and nineteenth centuries and showing a variety of stitches. A seventeenth-century cover (fig. 135) is embroidered with figure subjects, animals, and floral motives in many brilliant colors

Fig. 135. Embroidered Cover
Persian, XVII Century

on a black background. Other specimens exemplify the closely embroidered fabrics of the eighteenth century used for women's trousers. Patchwork made from cloth of many colors was popular in the eighteenth and nineteenth centuries. It was often padded with papier-mâché and outlined with couched silk and silver thread. The work was done chiefly at Resht and Ispahan.

Our textile collection includes several examples of the block-printed cotton hangings known as *kalamkar*. They were made

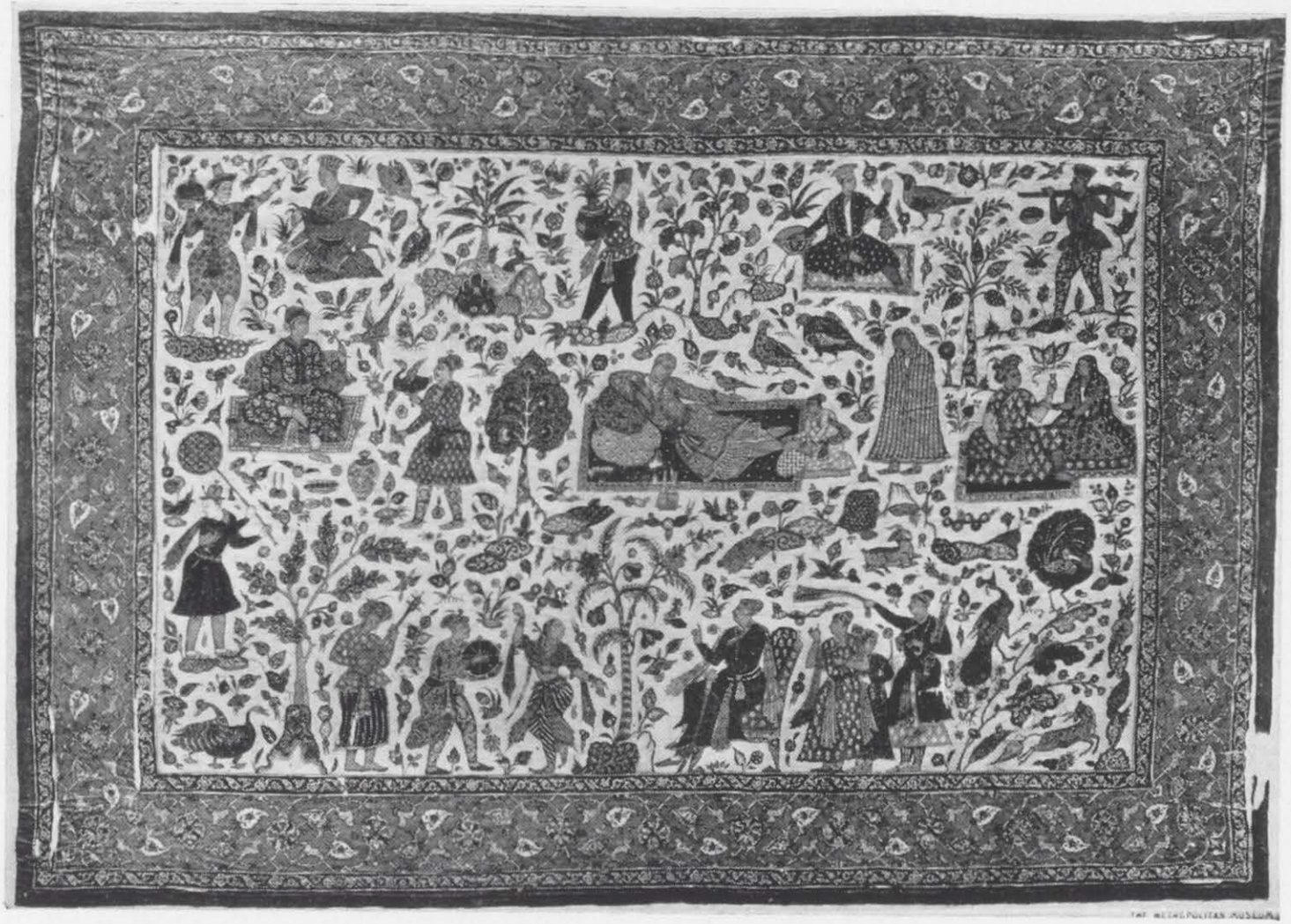


Fig. 136. Painted Cotton. Indian, XVII Century

in Ispahan, Hamadan, and Yezd, most of them in the nineteenth century.

8. *Indian Textiles*

The art of weaving and decorating fabrics by various methods was known in India in the pre-Mohammedan era, but no examples of this period have been preserved. The textiles of the Mohammedan period include brocades, damasks, embroideries, and painted and printed cottons. The techniques of block printing and resist dyeing are of great antiquity, possibly having originated in India. This Museum possesses several remarkable specimens of painted cottons known as "palampores," or "pintadoes." One large hanging is decorated with figure subjects in an architectural setting. Three little mats or cushion covers are painted with figures of men and women, animals, and plants. The compositions show numerous genre scenes of great charm (fig. 136). Some figures are dressed in Persian, others in Hindu fashion. On the backs of the three covers are inscriptions written in Persian and Indian bearing inventory dates, corresponding to 1650, 1651, 1673, 1689, and 1701. Judging from the costumes and the style of the design, we may assign these rare "pintadoes" to a period from about 1615 to 1640. Painted and printed cottons were popular not only in India and Persia but also in Europe, to which they were brought by the English and Dutch trading companies.

Indian fabrics with woven patterns often display great technical skill. The colors are bright and varied in hue, and gold is liberally employed to give a sumptuous effect. Embroideries of extraordinary fineness were produced in Kashmir.

9. *Turkish Textiles and Embroideries*

At Brusa, Scutari, and other places in Asia Minor, weaving was a flourishing industry from the sixteenth century on. In

the beautiful fabrics produced by these Turkish looms new floral motives, such as the carnation, tulip, hyacinth, and rose, are introduced. These motives, which appear again on Turkish ceramics, are rendered either naturalistically or in a stylized manner. Turkish brocades and velvets of the sixteenth and seventeenth centuries with large patterns served principally for hangings and covers, and those with patterns on a smaller scale were used for costumes. Both varieties are well represented in this Museum.

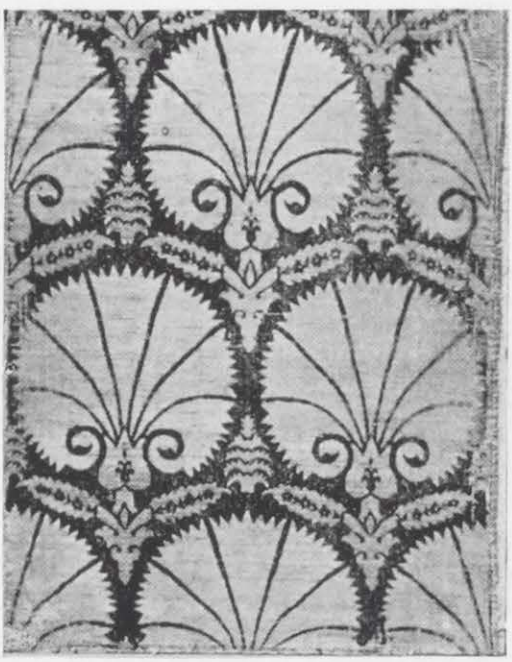


Fig. 137. Velvet, Turkish
Asia Minor, XVI-XVII Century

A splendid Turkish velvet with a bold pattern of carnations in gold is shown in figure 137. Another velvet is patterned with large cone devices surrounded by the gold lanceolate leaves which appear so frequently in Turkish ornamentation. A red background is quite common, but green and sometimes purple also occur. Another popular design is formed by an ogival framework of bands, plain or overlaid with leaves, inclosing various blossoms or palmettes. One such fabric is ornamented with large palmettes containing carnations and tulips in ogival compartments. The best of these specimens may be assigned to the middle or the second half of the sixteenth century, but similar designs continued in favor in the seventeenth century and the early part of the eighteenth.

Typical of the costume brocades is the sumptuous fabric illustrated in figure 138. A group of brocades with small all-

over patterns has sometimes been incorrectly attributed to Persia, probably because some of the palmettes are Persian in appearance. A comparison, however, with the ornament of Turkish ceramics convinces us that these brocades are the products of Turkish looms. Charming floral motives, tulips, carnations, pomegranates, and rose sprays, are disposed both informally and in set patterns. Various colors, such as red, green, and purple, are enhanced by gilded silver threads. A typical specimen, with a floral pattern in gold, red, and blue on a dark purple background, is reproduced in figure 139. The naturalistic treatment of the floral ornament is characteristic of Turkish art. The brocades of this group are perhaps the finest productions of the Turkish looms of the seventeenth century. The Turks were admirable in their feeling for realistic but subtle effects, in which they often surpassed contemporary Persian craftsmen.

Fig. 138. Gold Brocade
Turkish, Asia Minor
XVII Century

Embroideries were produced both in Asia Minor and in European Turkey. The embroideries of Asia Minor often recall Brusa velvets and brocades in their designs, in which floral motives, either stylized or naturalistic, are conspicuous. The early examples, which date from the sixteenth and seventeenth centuries, are embroidered, usually in couched work, on a silk background. Later specimens are generally embroidered on muslin (fig. 141).

The embroideries produced in European Turkey are less

PLATE IV

Color Collotype by Max Jaffé, Vienna.

Silk Weave, Persian, XVI Century

sophisticated in design and may be described as peasant work. Of these Turkish embroideries, dating mainly from the eighteenth and nineteenth centuries, the so-called Yanina embroideries constitute a well-known class. They are executed in various stitches, the ornament consisting of floral motives either alone or combined with figures of men, animals, birds, and ships. Turkish influence is also seen in many of the embroideries made in the Greek Islands, such as Crete and Rhodes, although European motives also occur in other embroideries of the same provenance.

Fig. 139. Gold Brocade
Turkish, Asia Minor
XVII Century

10. *Spanish and Sicilian Textiles of the Mohammedan Period*

The Arab conquest of Spain in 711 introduced the arts and crafts of the Near East into Europe. As early as the ninth century Spanish textiles are mentioned in the papal inventories, and Idrisi, the Hispano-Arabic historian (1099-1154), states that there were eight hundred looms at Almería in Andalusia for the weaving of costly silk stuffs. In the Royal Academy of History at Madrid is preserved a precious fabric decorated with a tapestry-woven band in light blue, dark blue, and red, with octagons containing geometrically stylized animals, birds, and human figures. It is inscribed in Arabic with the name of Hisham II, Caliph of Cordova (976-1013). The design, which is of Egypto-Arabic

origin, resembles the patterns on contemporary Hispano-Moresque ivory caskets.

An interesting fabric with tapestry-woven decoration in colored silk is in the Cooper Union Museum in New York. Within interlaced circles are pairs of figures drinking. Here again the similarity of the figures to those on Spanish ivory caskets of the eleventh century is striking, and indicates that the piece must belong to the same period. Similar in style is a fragment of gold brocade (fig. 140) in this Museum with a design of musicians holding tambourines. The colors are light brown, red, blue, green, and gold on a gold background. The fabric, which is of particular interest because of the rarity of figure subjects, may be assigned to the twelfth or thirteenth century.

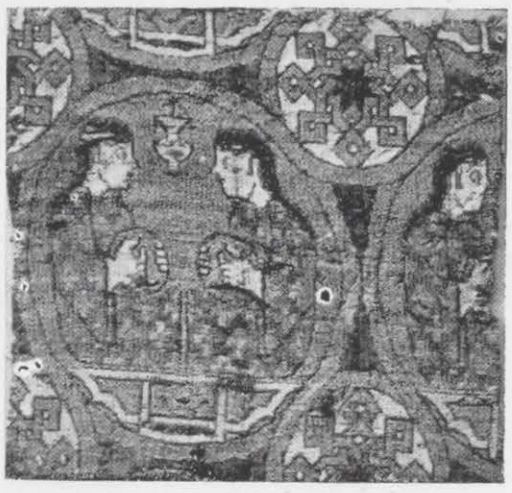


Fig. 140. Gold Brocade
Hispano-Moresque
XII-XIII Century

Another important specimen of the eleventh or twelfth century is a silk weave in Berlin, with large double-headed eagles within circles which are bordered by rows of animals. Although it has been called Persian by Migeon, the style and ornament point rather to Spain. Other noteworthy Spanish silks of the same period are in the Episcopal Museum at Vich and the Cooper Union Museum in New York.

The Metropolitan Museum possesses several specimens of Spanish gold brocades of the twelfth or thirteenth century. One very fine fragment has a pattern of roundels with confronted griffins and six-pointed stars woven in red and creamy white silk and gold. In style this silk is related to a group of Spanish textiles in the Victoria and Albert Museum, one of

which has two Kufic inscriptions: "Perfect blessing and victory," and "The Merciful." Another fragment formed part of the cope of Don Felipe (died 1274), now in the Archaeological Museum of Madrid. It is woven in tan and gold in a pattern

Fig. 141. Embroidery, Turkish
Asia Minor, XVIII Century

of interlacing bands which form six-pointed stars. A fragment of a brocade in this Museum is decorated with interlaced curved and straight lines within small squares, and is probably from the cope of Saint Valerius, in the cathedral at Lérida.

To Spain are attributed certain gold brocades showing both Persian and Chinese influence. The designs are characterized by scrollwork combined with figures of animals in gold on a

blue background. Two such fabrics are in this Museum. In one, the scrollwork and lotus palmettes inclose a pair of hares; the other shows palmette scrolls with birds drinking from a fountain. They are probably of the early fourteenth century, and are closely related both in style and technique to other Spanish textiles.

Other fourteenth- and fifteenth-century textiles of Spain are decorated in the so-called Alhambra style. The ornament consists of interlaced bands, polygons, inscriptions, and arabesques in vivid colors. Excellent specimens of such textiles, probably woven at Granada, may be seen in this Museum. One of our fabrics (fig. 142) bears an Arabic inscription in yellow and red reading "Glory to our Lord the Sultan." The Hispano-Moresque style did not lose favor until well into the sixteenth century.

Silk fabrics are known to have been woven in Sicily under Arabic rule in the tenth and eleventh centuries, but no existing specimens can be attributed to the Sicilian looms of that period. Under the Normans, who perpetuated the customs and manners of the Arabs, the art of weaving was highly developed. After the Oriental fashion, the Norman kings established in the twelfth century at Palermo royal manufactories which produced woven and embroidered silk fabrics of high quality. Magnificent dated examples in the State Treasury at Vienna, such as the imperial mantle and alb, were made in Palermo. The former, dated A. H. 528 (1134), is embroidered in gold with pearls on a red background. The pattern shows a repeating motive of a camel attacked by a lion. The alb was made under the Norman king, William II, in 1181, and has a beautiful border of griffins and palmette trees in gold on a purple background. To these manufactories is also assigned the brocade still at Palermo from the burial robe of the Emperor Henry VI (died 1198), and other similar fabrics.

Fig. 142. Silk Weave
Hispano-Moresque, XV Century

A silk weave in the cathedral at Toulouse is attributed by Falke to Sicily, and by Kendrick to Spain. The pattern shows pairs of stylized peacocks separated by a palmette tree, woven in red and yellow on a black ground with variations in the colors. Smaller pieces of this fabric are in the Victoria and Albert Museum, London, the Cluny Museum at Paris, and the Bargello in Florence.

Chapter XIII. Rugs

PERSIAN AND INDIAN RUGS MAINLY IN GALLERIES D 3 AND E 14; RUGS IN THE ALTMAN COLLECTION IN GALLERY K 33; AND TURKISH AND CAUCASIAN RUGS IN GALLERIES E 12 AND H 20

1. *Technique and Earliest Specimens*

In general, Oriental rugs are woven with a pile surface. In the process of weaving, a row of knots alternates with two or three weft threads. The knots of wool or silk are tied by hand over warp threads, usually two in number, but occasionally, as in early Spanish rugs, one warp only. The ends are then cut off to produce an even pile surface. There are two principal kinds of knots: one is the Ghiordes or Turkish knot; the other, the Sehna or Persian knot. In the Ghiordes knot the thread is passed across the front of two warps between which the free ends of the knot come out. In the Sehna knot the thread encircles one warp, one end coming to the front between the warps, while the other passes outside the second and to the front.

Excavations in Chinese Turkestan have furnished us with the earliest specimens of knotted rugs. In a fragment found by Le Coq in Qyzil near Kutcha the knots are wound around one warp thread as in the mediaeval rugs of Spain. According to Le Coq, the ruins where this fragment was found may be dated to the fifth or sixth century. Other fragments, found by Sir Aurel Stein at Lou-Lan, show various geometrical designs in

brown, red, yellow, green, and blue. These finds in Central Asia are of the greatest importance, as they indicate that the technique of knotting rugs probably originated among the Iranian or Turkish nomads of Central Asia.

2. *Rugs Found at Fustat*

A fragment of a rug found at Fustat, or Old Cairo, now in the Arab Museum, has a Kufic inscription, and may be assigned to the Fatimid period. It is regarded by Sarre as of local ori-

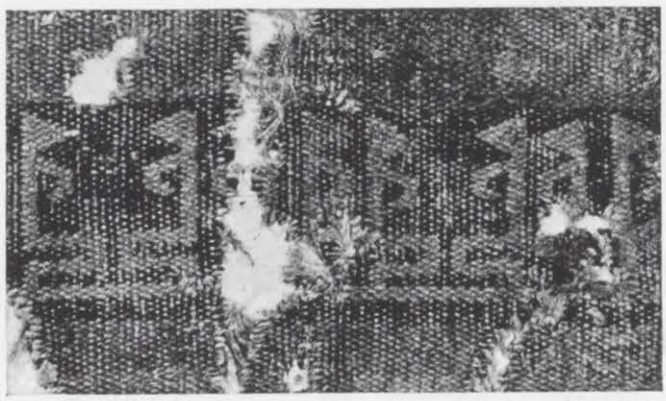


Fig. 143. Fragment of Rug
From Fustat, about XII Century

gin. That rugs were made in Egypt is known from literary sources. Makrizi mentions the fact that in the palace of the Fatimid caliphs were so-called Kalimun rugs, and Yakubi praises the "Kermes rugs of Siut."

The Metropolitan Museum possesses five important fragments of rugs (Textile Study Room) found at Fustat, which may throw more light on the early history of Oriental rugs. One of these shows a dentelated ornament, a band of triangles, and disks in blue, yellow, green, and brown, on a red background, bordered by a band of Kufic characters (fig. 143) in yellow on a dark blue ground. Another fragment is ornamented with a hooked design and a row of disks in blue, yellow, and green on a red background. The pattern of the third frag-

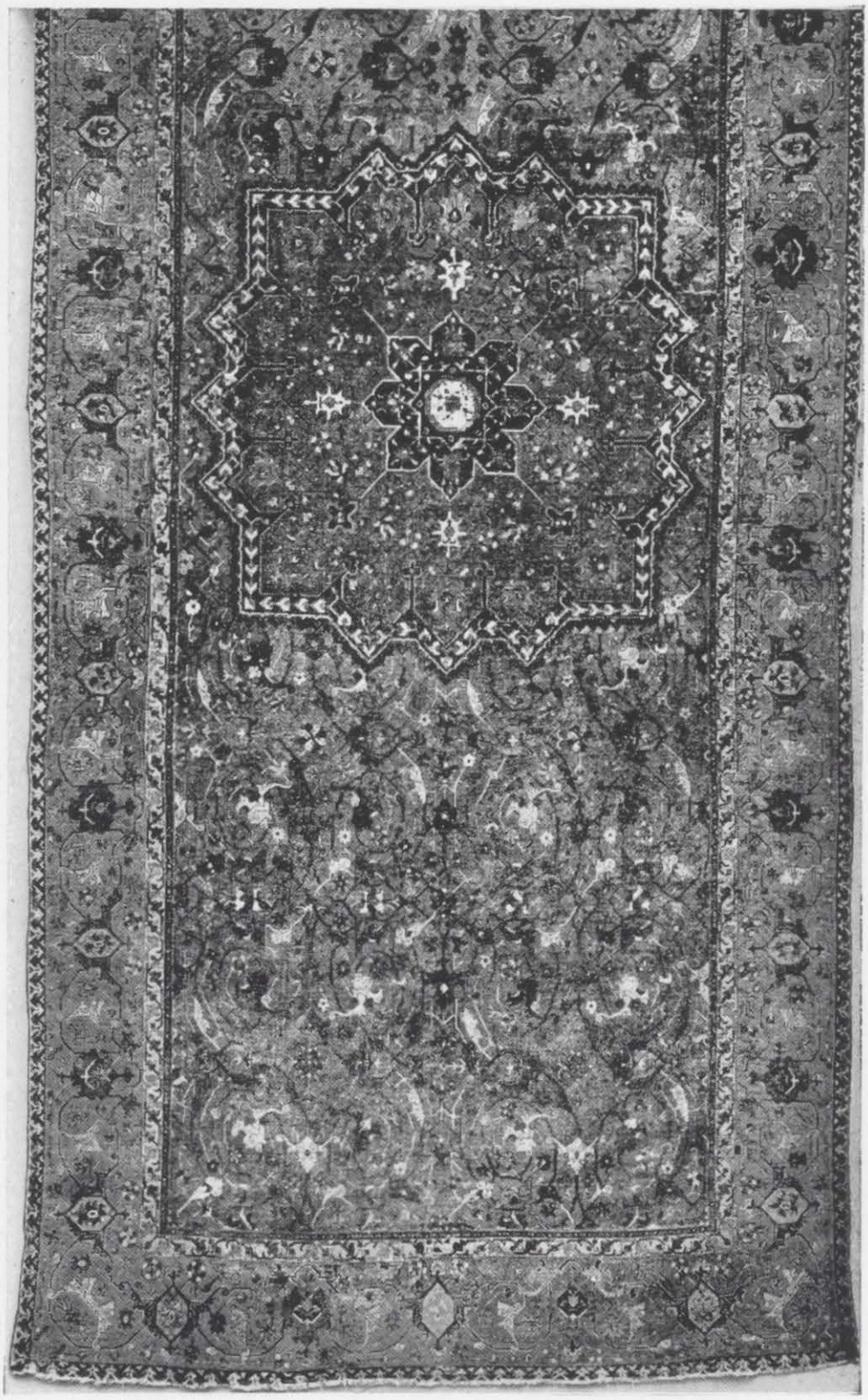


Fig. 144. Medallion Rug. Persian, Late XV Century
(Detail)

ment consists of an angular design of a bird (phoenix?) and rosettes within an octagon. The fragment in figure 143 is technically of great interest, as the knots are tied about single warps in a technique similar to that of the fragment from Central Asia and to that of the Spanish rugs previously mentioned. Whether this rug was made in Egypt or imported, it is not yet possible to determine. It is probably the earliest fragment of our group, and may be assigned to the late Fatimid period, that is, to about the twelfth century. The other fragments, which are knotted in a Ghiordes technique, are related to the rugs from Asia Minor described in the following paragraph.

3. *Early Rugs of Asia Minor*

Rugs of Asia Minor are mentioned by Marco Polo, who traveled in the Seljuk empire at the end of the thirteenth century. According to him, the finest and most beautiful rugs were manufactured in Konia by Greek and Armenian craftsmen. Three specimens with geometrical patterns from the Mosque of Ala ad-Din at Konia are now in the Evkaf Museum, and have been attributed by Bode and Sarre to the thirteenth or fourteenth century. The pattern consists of geometrical motives in red, yellow, and blue with Kufic inscriptions in the borders.

To the first half of the fifteenth century are attributed two rug fragments, one in the Kaiser Friedrich Museum in Berlin, the other in the Historical Museum, Stockholm. The Berlin piece is decorated with an angular design of a dragon in combat with a phoenix; the Stockholm fragment, with two confronted birds in a tree. One of our fragments found at Fustat, decorated with a bird(?), is similar in style and is knotted in the Ghiordes technique. All these pieces were probably woven in eastern Asia Minor in the fourteenth or the first half of the

Fig. 145. Medallion Rug. Persian, Early XVI Century
(Detail)

fifteenth century. Many reproductions of early rugs from Asia Minor appear in Italian paintings of the thirteenth, fourteenth, and fifteenth centuries.

4. *Persian Rugs*

Although rugs are represented in Persian miniatures of the fourteenth and fifteenth century, there are no existing specimens of Persian manufacture that may surely be assigned to this early period. Some rugs have been so dated, but on insufficient grounds. The rugs represented in fifteenth-century miniatures show either geometrical or floral patterns, the former consisting of octagonal diapers, interlacings, and Kufic ornament, the latter of highly stylized designs. Toward the end of the fifteenth century rugs are represented with medallions of angular or lobed outlines filled with arabesques and floral scrolls. There is still a difference of opinion as to the dating of some of the early Persian rugs, but it is certain that the vast majority of those seen in private collections and in museums are not earlier than the sixteenth century. A few specimens, however, may have been woven at the end of the fifteenth century in Tabriz during the reign of the Turkoman dynasty. To this period may be assigned a rug in the Ballard Collection, decorated in the center with a sixteen-pointed, star-shaped medallion with stems and palmettes on a blue and red ground (fig. 144). The main field is covered with interlaced arabesques and floral scrolls bearing small palmettes on a salmon red background. The stylized design and the unusual color scheme point to an early date.

A. Rugs of the Safavid Period (XVI and XVII Centuries)

The finest Persian rugs known to us were woven in the sixteenth century, during the rule of the Safavid dynasty. Since we know nothing, or very little, about the various centers of

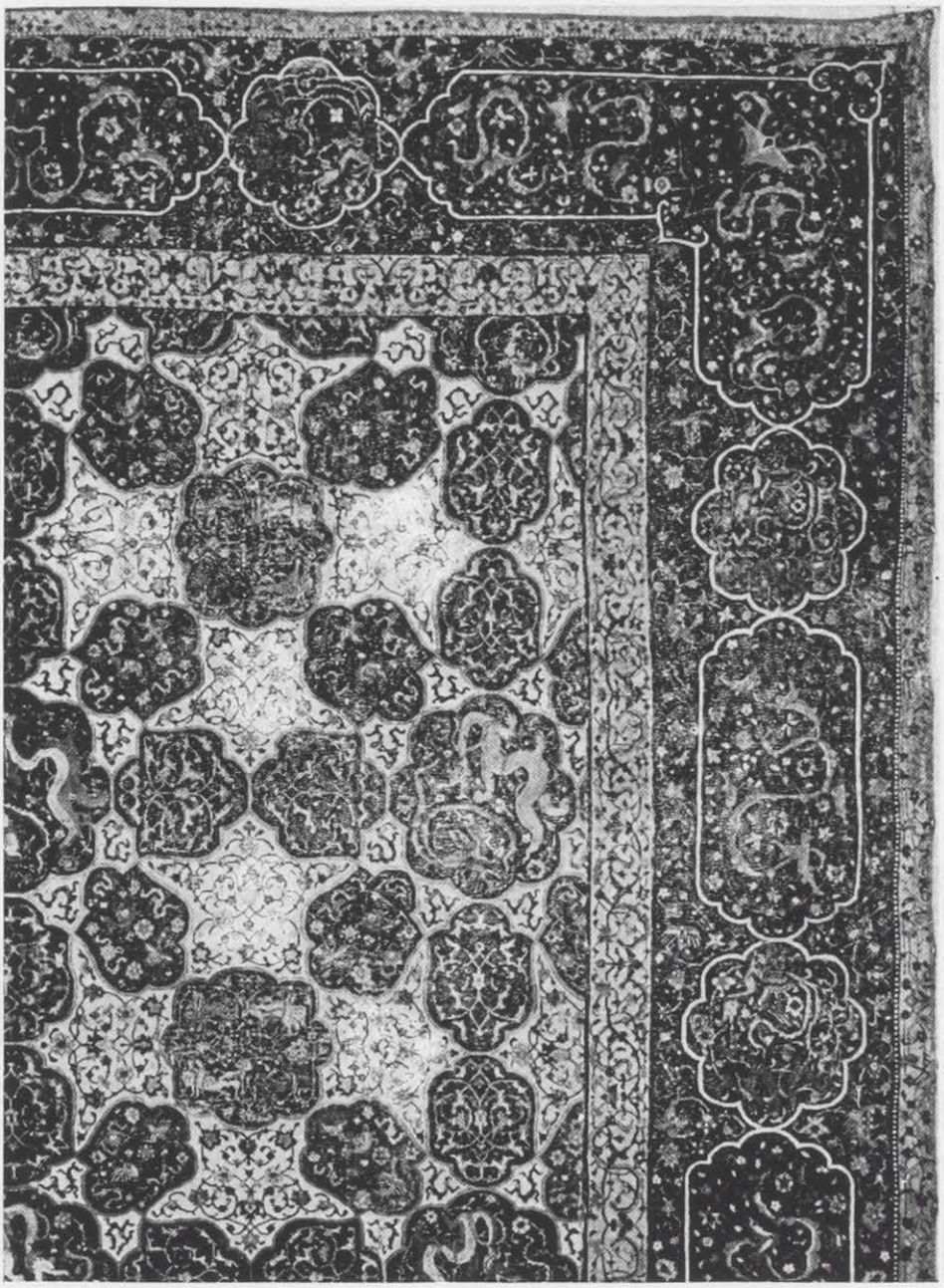


Fig. 146. Compartment Rug. Persian, XVI Century
(Detail)

manufacture, these rugs are best classified for the present according to the different types of design.

Medallion Rugs

Rugs of this type are characterized by central medallions of various shapes with cartouches and small medallions attached, and quarter sections of medallions in the corners. The decorative motives consist of arabesques and floral motives to which animal and hunting scenes are sometimes added. A typical medallion rug (fig. 145) may be seen in the Altman Collection. In the center is a white medallion with an eight-pointed blue star; a cartouche and a lobed compartment are attached above and below. The rose-colored field is filled with arabesques and fine floral scrolls. The floral ornament and the color scheme of this rug are richer than those in the earlier type seen in figure 144. Floral motives, derived from the Chinese lotus and peony, are generally stylized, but in a few instances a more naturalistic trend is noticeable. A medallion rug which may be regarded as a prototype of the Ushak rugs of Asia Minor (recently exhibited in the Museum as a loan from Albert Wielich) is decorated with a stylized floral pattern in white, tan, light blue, and dark blue on a wine red background. The severe elegance of the scrolls and the stylization of the flowers in these three rugs indicate a date in the first half of the sixteenth century. The dating is further substantiated by a hunting rug, in the Poldi-Pezzoli Museum in Milan, inscribed with the date A. H. 929 (1522/23)[1] and the name of the maker, Ghiyath ad-Din Jami. This important rug has a central medallion in red decorated with floral scrolls and birds; the field shows hunting scenes on a blue ground. The angular treatment of the floral motives recalls the pattern of the medallion rugs of figures 144 and 145, previously discussed. These rugs are generally attrib-

[1] Sarre and others favor the reading of the date as A. H. 949 (1542/43).

Fig. 147. Prayer Rug. Persian, XVI Century

uted to the looms of northwestern Persia, of which Tabriz was the artistic center.

The highest perfection of technique and design in rugs was achieved in the time of Shah Tahmasp (1524-1576). Of great importance is the large rug from the tomb mosque of Shaikh Safi at Ardebil in the Victoria and Albert Museum. It was made in 1539-1540 and bears the name of the orderer or maker, Maksud of Kashan. The intricate floral design of the background shows a more naturalistic treatment than occurs in such rugs as those illustrated in figures 144 and 145; and the scrolls, winding their way over the main field, bear a multitude of blossoms such as we find in many Persian floral rugs.

A masterpiece of the Shah Tahmasp period is the compartment rug (fig. 146) in this Museum, closely woven (676 knots to the square inch) in brilliant and well-preserved colors. Instead of the usual center medallion the field shows nine smaller medallions in dark blue, containing the Chinese motive of the fight between the mythical dragon and phoenix. Each medallion has eight radiating escutcheons, red, blue, and green in succession, with arabesques or flying ducks. Small lobed medallions with four running lions on a blue ground connect the pattern units into a diaper. The intervening spaces are patterned with arabesques, floral scrolls, and Chinese cloud bands, in blue, orange, and red on a white background. The border is also of great beauty; here, on a brilliant red ground, richly decorated with floral scrolls, appear arabesques and wormlike Chinese cloud bands within cartouches of dark blue and fighting phoenixes and dragons inclosed by medallions. The color combinations of the pattern are always so chosen as to blend harmoniously with the tone of the background. Characteristic of this rug is the abundance of Chinese motives that play an important rôle in the ornamentation of the Safavid period. They appear also in an important prayer rug (fig. 147) from

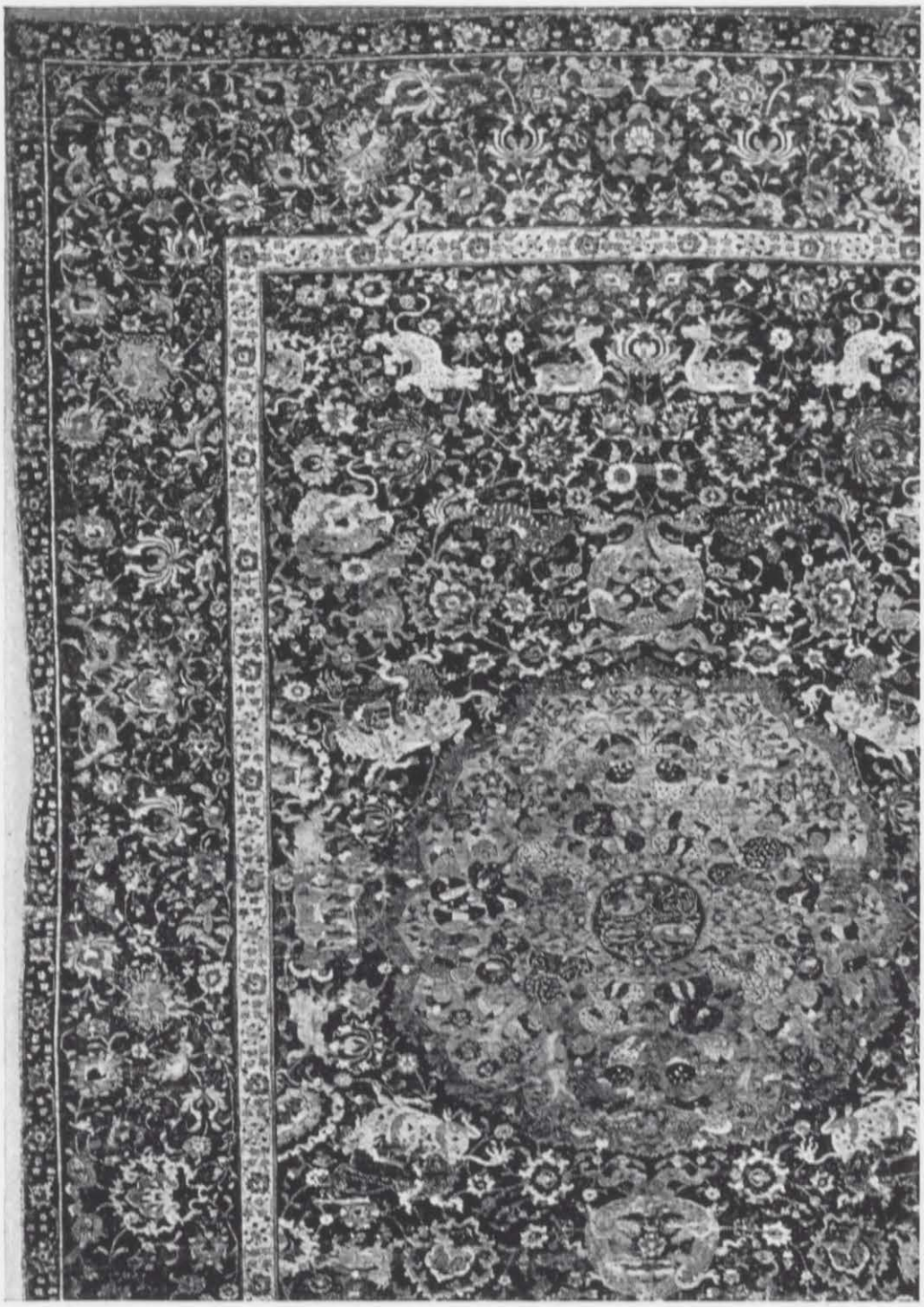


Fig. 148. Medallion Rug. Persian, XVI Century
(Detail)

the Fletcher Collection in this Museum. It is decorated with floral scrolls, arabesques, and Koranic inscriptions along the border and in the small compartments of the main field. The design and color scheme recall those of the rug (fig. 150) from the tomb mosque at Ardebil, which we shall discuss farther on.

There are other medallion rugs that are decorated not only with floral and arabesque ornament but also with animals and human figures. An early example is the rug already referred to in the Poldi-Pezzoli Museum. Of approximately the same date are several rugs in American and European collections — for instance, the animal and medallion rug in the Clarence Mackay Collection in New York, a mate to it in the Kaiser Friedrich Museum in Berlin, and a similar rug in the collection of Count Boucqoi in Vienna. To about the middle of the sixteenth century may be assigned the medallion and animal rugs in the Poldi-Pezzoli Museum, the Stieglitz Museum in Leningrad, the Musée des Arts Décoratifs in Paris, the collection of Prince Schwarzenberg in Vienna, and the splendid rug with large Chinese vase motives in the Victoria and Albert Museum in London. To this group belongs also a magnificent rug lent to the Metropolitan Museum by George F. Baker. It has a rich floral and animal decoration within a medallion. The main field of red is intricately patterned with naturalistic scrollwork palmettes and a symmetrical composition of animals, single or in combat. Several parts are brocaded in gold and silver. The design and workmanship of this rug, which was probably woven in one of the court manufactories at Tabriz, are of superb quality.

Of great interest are two identical rugs with central medallions (fig. 148) in our collection. The representation within the medallions of human figures in blue, green, and red costumes, playing upon instruments or holding animals, is most unusual. Trees in rich colors on a yellow ground form the

Fig. 149. Silk Rug. Persian, XVI Century
(Detail)

background. The rest of the main field is decorated with floral scrolls bearing palmettes and with animals in many colors on a claret red background. The dark green border contains floral scrolls with palmettes and birds. Among the realistically drawn animals are leopards pursuing deer, tigers fighting with dragons, lions attacking the Chinese *kilin,* and bears pursuing a goat. In the intervening spaces are a few large palmettes with the strongly serrated outlines so often seen in the so-called Herat rugs. These large palmettes, together with smaller ones, predominate in the beautiful borders of these rugs, which may be assigned to the second half of the sixteenth century. The place of manufacture is uncertain, as the rugs are related both to the northwestern group and to that of Herat. In common with the latter group the rugs have floral motives, and red and green ground colors in field and border.

Medallion Rugs in Silk

Medallion rugs in silk and metal threads were luxurious products of the court manufactories, and were made only for the use of the court or as gifts to foreign rulers. Among the presents brought by the Persian ambassador to Constantinople on the occasion of the accession to the throne of Selim II (1566) are mentioned twenty carpets of silk and gold, decorated with birds, animals, and flowers.

Two medallion rugs in the Altman Collection are among the finest specimens known of these Persian silk rugs of the sixteenth century. In the center of one (fig. 149) is a quatrefoil medallion with arabesques and floral scrolls in green and silver on a dark blue ground. The main field is decorated with floral scrolls bearing peony palmettes and with Chinese symbols of immortality (*tschi*), in rich colors on a claret red ground of brilliant lustre. The border, originally black, has blue-green bands with palmettes. In the second rug, the central

Fig. 150. Animal Rug from Ardebil. Persian, XVI Century
(Detail)

medallion is encircled by a band of palmettes. Silk rugs are generally attributed to manufactories at Kashan, one of the principal centers of silk weaving during the Safavid period.

The most magnificent example of Persian rug weaving is the imperial hunting rug in Vienna, knotted in colored silk and enriched with gold. The salmon red main field of this rug shows horsemen in costumes of the early Safavid period, hunting various animals, the landscape being indicated by plants. It was probably made in the middle of the sixteenth century in one of Shah Tahmasp's court manufactories. The subject and style recall the miniature paintings of Sultan Muhammad, who probably designed this famous rug. Of the same period and of similar quality is the hunting rug in the Rothschild Collection in Paris.

Rugs with Animal Decoration

Rugs of this group have an all-over floral pattern in which figures of animals, single or in pairs, are introduced. Of great beauty is the knotted woolen rug (fig. 150) in this Museum that comes from the tomb mosque of Shaikh Safi at Ardebil. A companion to this rug is now in the Rockefeller Collection in New York. The pattern consists of a repeated group of a lion and a tiger attacking a Chinese *kilin* and of other animal motives disposed symmetrically. The figures are ingeniously combined with floral scrolls bearing rosettes and peony palmettes in richly harmonious colors, set against a claret red background. The design was originally enhanced by silver threads which are still preserved in part. The border has a simple, dignified design of arabesques interlaced with floral scrolls and Chinese cloud bands on a dark blue background. The style of this remarkable animal rug relates it to a number of rugs of the middle of the sixteenth century, attributed to northwestern Persia.

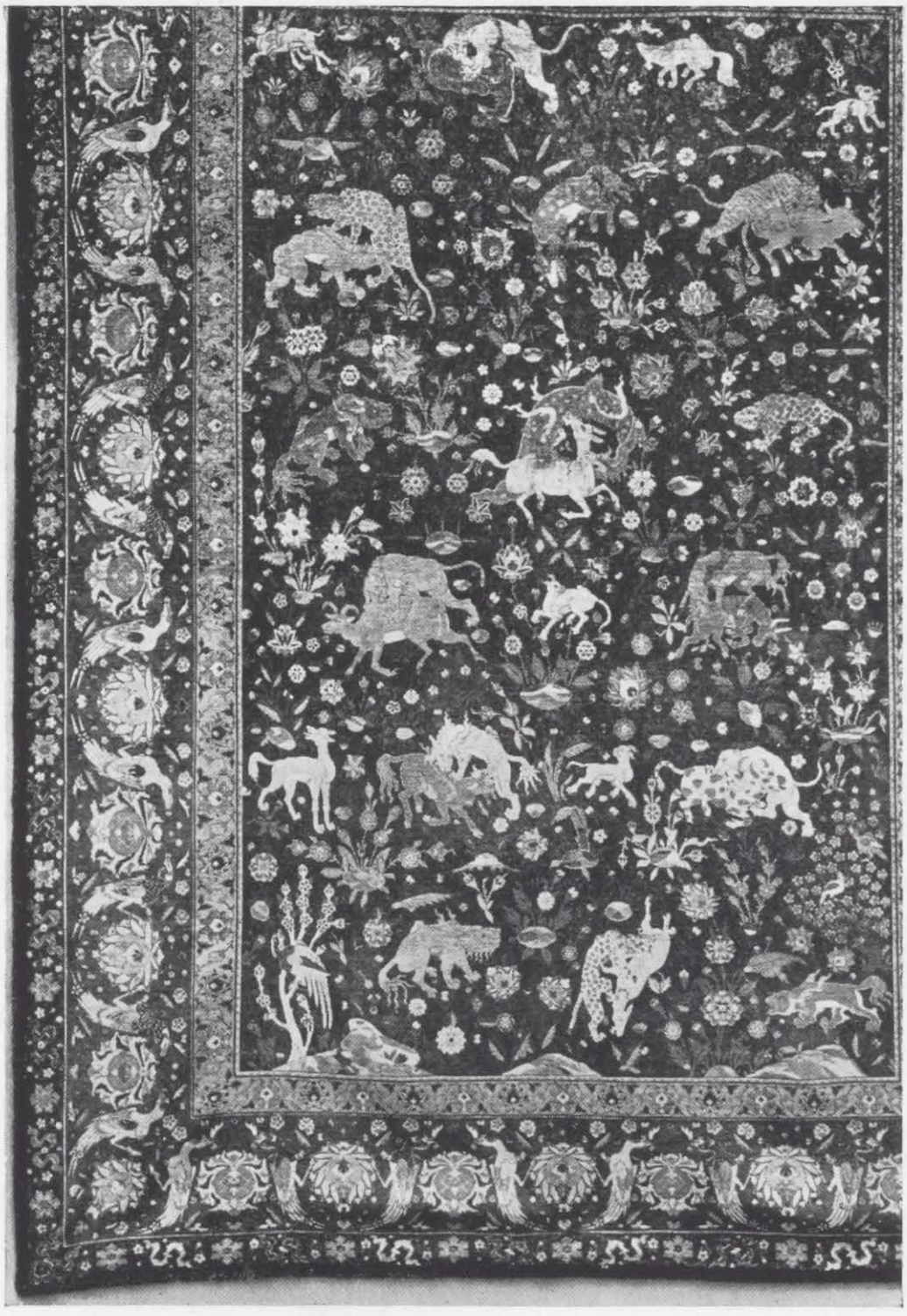


Fig. 151. Silk Animal Rug. Persian, XVI Century
(Detail)

A very fine silk rug (fig. 151) of the Kashan type in the Altman Collection illustrates another variety of animal rug in which the composition is more freely developed. There are six rows of animals, such as panthers, tigers, lions, dragons, deer, jackals, lion-*kilins*, foxes, and running hares, placed in a landscape with mountains, flowering plants, trees, and birds, on a ground of vivid and lustrous crimson. The green border has a pattern of palmettes and pairs of pheasants in various colors.

Rugs with Floral Patterns

A popular type of Persian rug of the sixteenth and seventeenth centuries is characterized by an all-over pattern of floral scrolls combined with palmettes and Chinese cloud bands. Such rugs, of which many examples are in museums and private collections, are properly associated with Herat in eastern Persia, though often wrongly called Ispahans. Rugs of this type are represented in European paintings of the seventeenth century. Olearius, who visited Persia about 1637 with the embassy of the Duke of Holstein-Gottorp, states that the handsomest carpets of Persia were then made at Herat in Khorasan. The reputation of Khorasan for the excellence of its rug manufactories is also established by other evidence. It seems probable, therefore, that the rugs of the type just mentioned were produced in the sixteenth and seventeenth centuries at Herat, the principal rug weaving center of the province.

The sixteenth-century rugs (fig. 152) of Herat are decorated both in the field and the border with an intricate floral pattern of numerous composite palmettes. The ground of the field is usually red, the border green.

In the seventeenth-century rugs of Herat the palmettes are larger (fig. 153) and, in addition, long, curved leaves appear. The color scheme, in which a brilliant blue is introduced, is less harmonious than that of the earlier rugs. In technique,

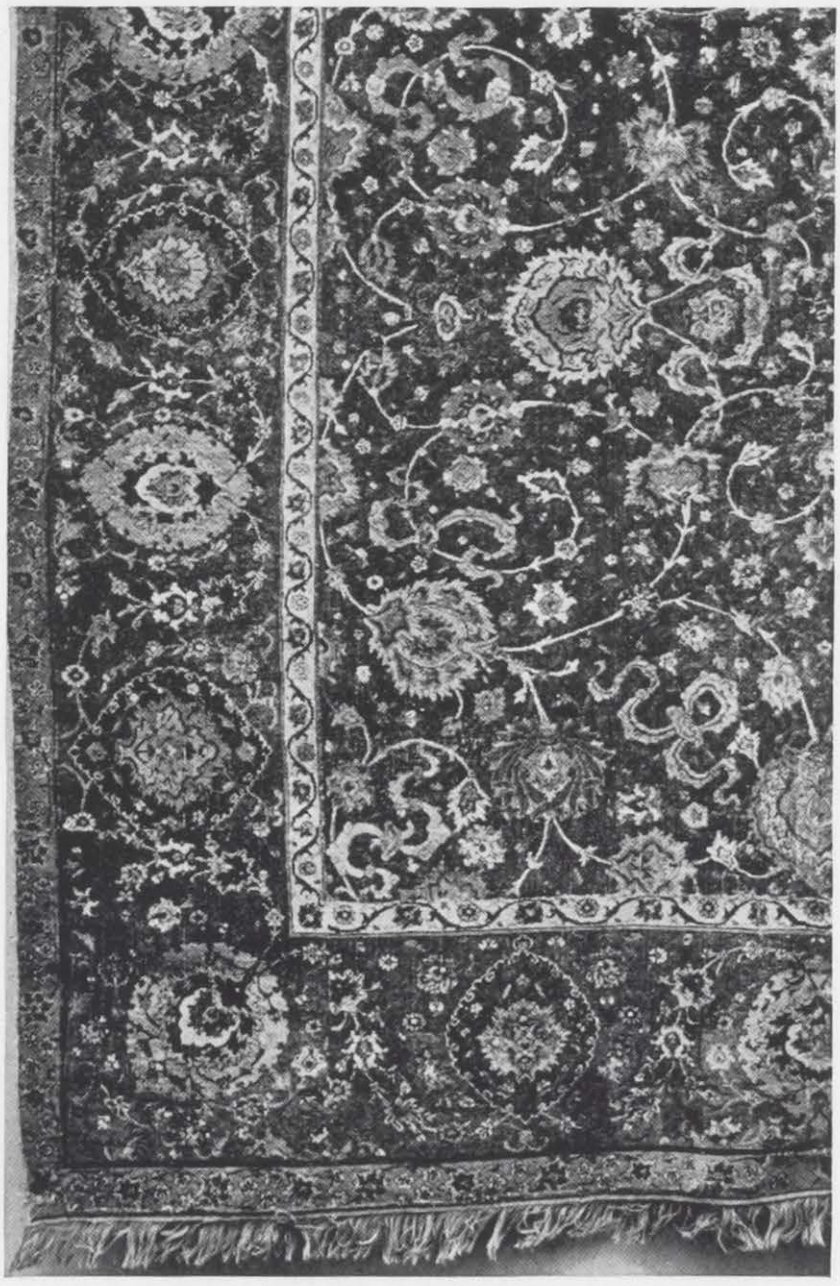


Fig. 152. Rug, Persian, XVI Century
(Detail)

also, they are inferior to the sixteenth-century rugs of Herat. That illustrated in figure 152 has two hundred and fifty-five knots to the square inch, and that in figure 153 one hundred and sixty-eight knots. Rugs of this type were exported to In-

Fig. 153. Rug, Persian, XVII Century (Detail)

dia and served as models for the Indian manufactories established by Akbar (see p. 258).

An eighteenth- or early nineteenth-century floral rug in the Ballard Collection has a trellis pattern with large palmettes on a dark blue ground. Rugs of this type are known to the trade as Ispahan, Shah Abbas, or Jushagan, and are related in point of design both to the rugs of Herat and to the so-

Fig. 154. Silk Rug. Persian (So-called Polish)
XVII Century

called vase rugs discussed later on. Such rugs were probably woven at Jushagan in central Persia, where a rug industry flourished until the middle of the nineteenth century.

The So-called Polish Rugs

For a long time a group of luxurious silk rugs with floral patterns, brocaded with gold and silver thread, were regarded as of Polish manufacture. Bode and Martin were the first to call attention to their purely Persian character, which is clearly demonstrated by comparison with other Persian rugs of the sixteenth and seventeenth centuries. One of the earliest known "Polish" rugs, now in the treasury of Saint Mark's in Venice, was presented by the ambassador of Shah Abbas to the Doge of Venice in 1603. In 1639 six "Polish" rugs, among them the famous coronation rug in Rosenborg Castle, Copenhagen, were presented by an embassy from the Shah of Persia to the Duke of Holstein-Gottorp. It is quite certain that rugs of this type were manufactured in Persia during the first half of the seventeenth century, probably in the court manufactories at Ispahan, and were intended chiefly as gifts for European princes and royal houses. One specimen, dated A. H. 1072 or 1082 (1661 or 1671), is in the mausoleum of Shah Abbas II at Kum. These "Polish" rugs were woven in delicate color schemes with gold and silver backgrounds to suit European taste. A great number of them are in European and American museums and in private collections. The Metropolitan Museum possesses six such rugs of different quality and in various states of preservation. The finest specimen (fig. 154) among them is in the Altman Collection. It is decorated with a rich pattern of arabesques, floral scrolls, and palmettes in light yellow, blue, and rose on a silver and gold ground in the main field, and in light blue and gray in other compartments. The border shows the long, serrated leaves which occur in the

Fig. 155. Tapestry-woven Rug. Persian, XVII Century

so-called Herat rugs and palmettes in light colors on an emerald green ground.

A small group of tapestry-woven silk rugs, also incorrectly called Polish, were probably used as wall hangings. In color scheme, and often in decoration, they recall the knotted "Polish" rugs. The most common motives are animals, birds, and floral scrolls, combined with central medallions. We have in this museum a tapestry-woven rug of this type with a floral pattern on a background of gold and silver (fig. 155). The finest known examples are in the Residenz Museum at Munich.

Rugs with Tree Decoration

Related to the Persian rugs with floral motives are those with patterns of shrubs and trees. One of the earliest known and rarest examples is in the Joseph Lees Williams Memorial Collection. The design consists of large cypresses, shrubs, and flowering trees on a red background. The coloring and the angular stylization of the design permit the rug to be attributed to the beginning of the sixteenth century.

Another example of a tree rug, but dating from the second half of the sixteenth century, is in this Museum. In the center of the design is a small pond with fishes. Around this grow four flowering trees. Birds perch on the branches or fly around nearby. The claret red field has a balanced design of naturalistic trees and palmettes. The tree motive is used also in a beautiful sixteenth-century prayer rug in the Altman Collection.

Rugs with Vase Motives

The so-called vase rugs belong to a rare type of Persian rug in which vase motives are combined with floral ornament. A rug (fig. 156) composed of three fragments in the Ballard Collection is typical of this class of rugs. The design consists of floral

Fig. 156. Vase Rug. Persian, XVI Century
(Detail)

scrolls forming a trellis pattern and bearing large composite palmettes. The intervening spaces contain vases with flowering plants and palmette devices with lily-like motives. Fine specimens of this type of Persian rug dating from the sixteenth century may be seen in museums at London, Constantinople, and Vienna, and in several American collections. They are generally attributed to Kerman in southern Persia. A more modern "vase rug" of the eighteenth or nineteenth century, in the Victoria and Albert Museum, is inscribed with the name of a Kerman weaver.

Garden Rugs

Another interesting group of Persian rugs is distinguished by schematic representations of gardens, divided by canals into rectangular plots within which grow trees and shrubs. They are in part reminiscences of the mythical rug, the "Spring of Chosroes," described by old Arabic writers. The earliest known example, with gold and silver threads, is in the Figdor Collection in Vienna, and may be assigned to the end of the sixteenth century. Most of the examples known are of the eighteenth century, and were probably made in northwestern Persia or Armenia. Two of the latter type (fig. 157) are in our collection.

5. *The So-called Armenian Rugs*

Highly conventionalized animal and floral motives, angular in drawing and vigorous in color, characterize this class of rugs. In the so-called dragon rugs the field is covered by a lozenge design of serrated leaves, inclosing palmettes and stylized dragons. The latter, however, are sometimes omitted. It was thought, when these rugs were first studied, that the severe, primitive character of the ornament might indicate a date as early as the middle of the thirteenth century. More recent opinion, however, places the date of production in the sixteenth,

Fig. 157. Garden Rug. Persian, XVIII Century

seventeenth, or even eighteenth century. The designs are inspired by Persian models, but are so transformed because of the inexperience of the weavers, or through the force of a traditional folk art, that they seem almost archaic in style. This Museum possesses two representative specimens of these dragon rugs (fig. 158), both in the Ballard Collection. A third, exemplifying another type of "Armenian" rug, is decorated with a stepped lozenge in the center, surrounded by stepped bands and floral motives in bright colors of a peculiar purple tone characteristic only of "Armenian" rugs. In the corners of this rug are conventionalized trees, animals, and birds.

The presence of Armenian inscriptions in some of these rugs led to the belief that they were Armenian in origin (one in the Victoria and Albert Museum bears the name of the weaver Kuhar and a date corresponding to 1699-1700). This view was challenged by Jacoby, and later by Pope, who attribute these rugs to the Caucasus, particularly the region of Kuba. Sakisian, however, has recently advanced good reasons in support of the earlier theory. The two opinions are not mutually exclusive, since part of Armenia lies in the Caucasus.

6. *Indian Rugs*

According to the historian Abu 'l-Fazl,[2] the Emperor Akbar (1556-1605) "caused carpets to be made of wonderful variety and charming textures; he has appointed experienced workmen who have produced many masterpieces. The carpets of Iran and Turan are no more thought of, although merchants still import carpets from Joshagan (between Kashan and Isfahan), Khuzistan (in which province Tuster is the chief town), Kirman and Sabzawar (in Khurasan). All kinds of carpet weavers have settled here, and drive a flourishing trade.

[2] F. R. Martin, *A History of Oriental Carpets*, pp. 88 and 89.

Fig. 158. Dragon Rug. So-called Armenian, XVII Century
(Detail)

These are found in every town, especially in Agra, Fathpur and Lahore."

The rugs woven in India at this time, judged from the representations of rugs in miniature paintings, were much influenced by Persian models. The floral patterns recall Herat rugs, which were undoubtedly known in India and copied there by Persian and Indian weavers. Only a few existing rugs of Indian manufacture may be attributed to the late sixteenth or to the early seventeenth century. The majority belong to the period of Shah Jahan (1628-1658).

A magnificent example of an early Indian rug dating from about 1600 is illustrated in figure 159. The rug, which is twenty-seven feet long, is patterned with trees and shrubs interspersed with animals. The design shows Persian influence, but is distinguished by a greater freedom and symmetry in composition, by a more realistic representation, and by a peculiar color scheme in which madder red is conspicuous. An animal rug in which human figures are also introduced probably dates from the time of Jahangir; it is in the Museum of Fine Arts, Boston. Another Indian rug with trees and birds is in the Kunstgewerbe Museum, Vienna.

Another great rug in our collection, measuring thirty feet in length, has a balanced design of floral scrolls, large serrated leaves, and palmettes on a red background. The border is composed of medallions and cartouches with palmettes and Chinese cloud bands. The design shows the influence of the so-called Herat and Kerman rugs, but the deep coloring and some of the floral motives are purely Indian in character. Many details recall the famous Indian rug in the possession of the Girdlers' Company, London, which was made, according to records, in the imperial factory at Lahore for the master Robert Bell, who presented it to the Girdlers' Company in 1634. The Metropolitan Museum rug is either contemporary

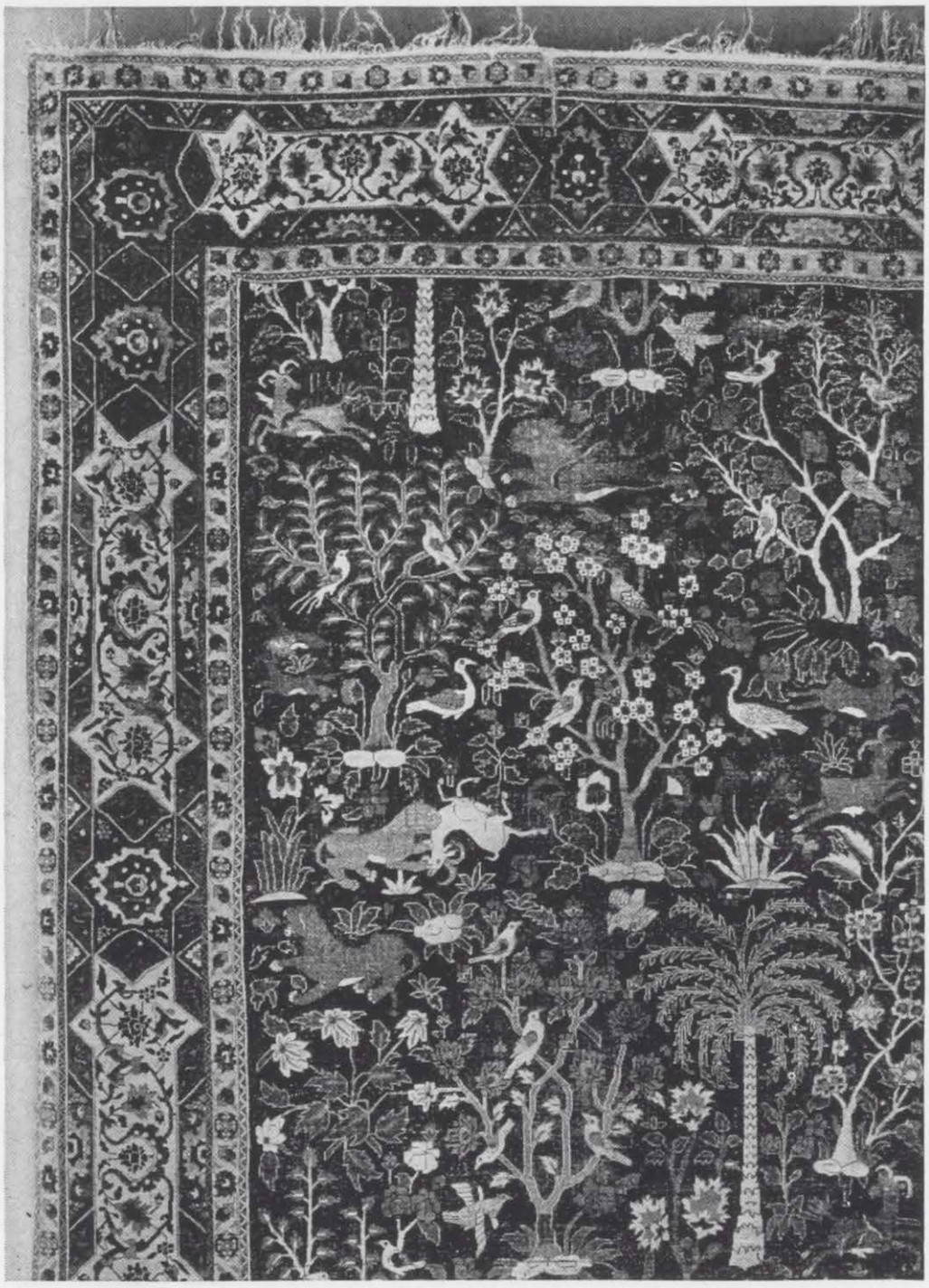


Fig. 159. Rug, Indian, about 1600
(Detail)

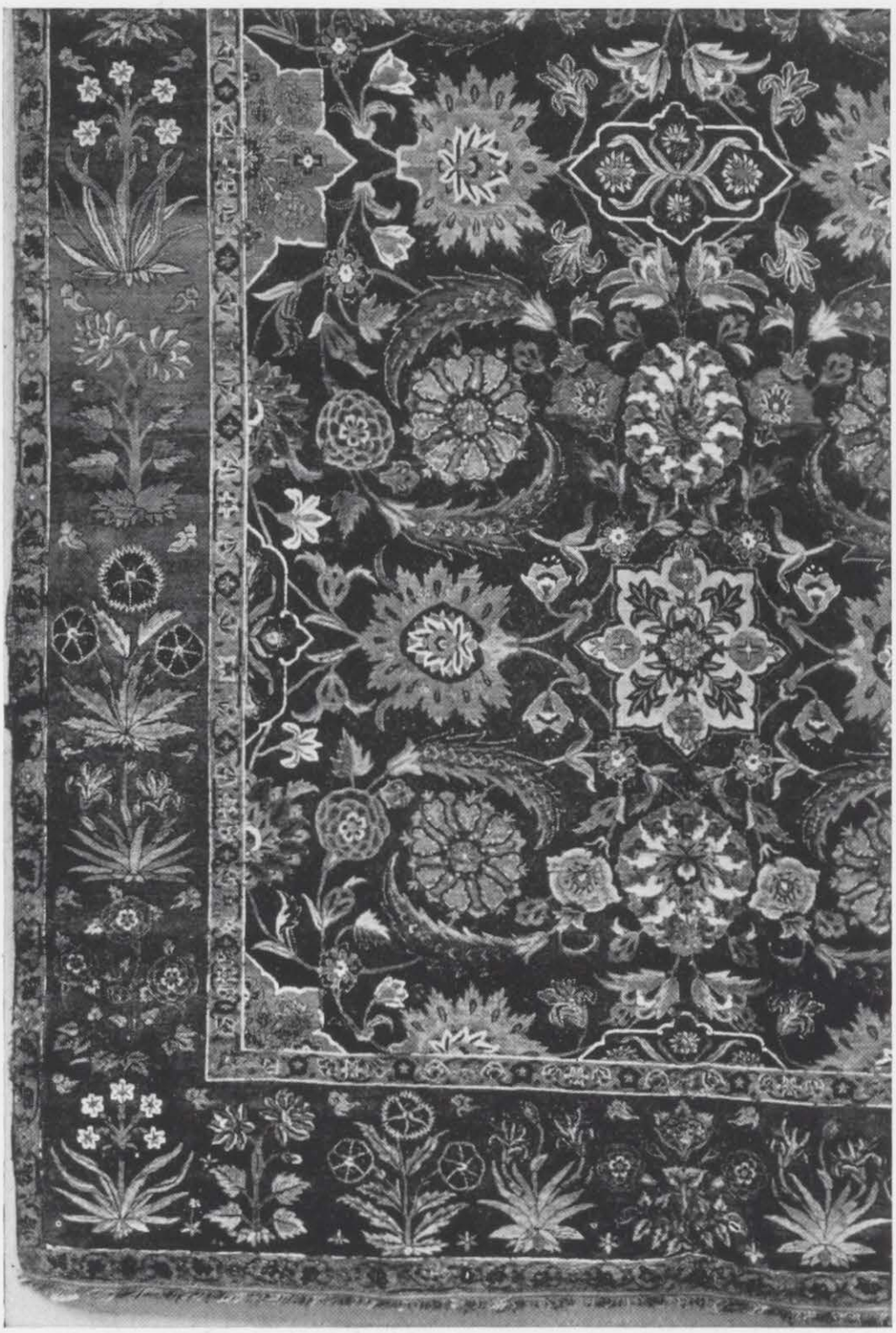


Fig. 160. Rug, Indian, XVII Century
(Detail)

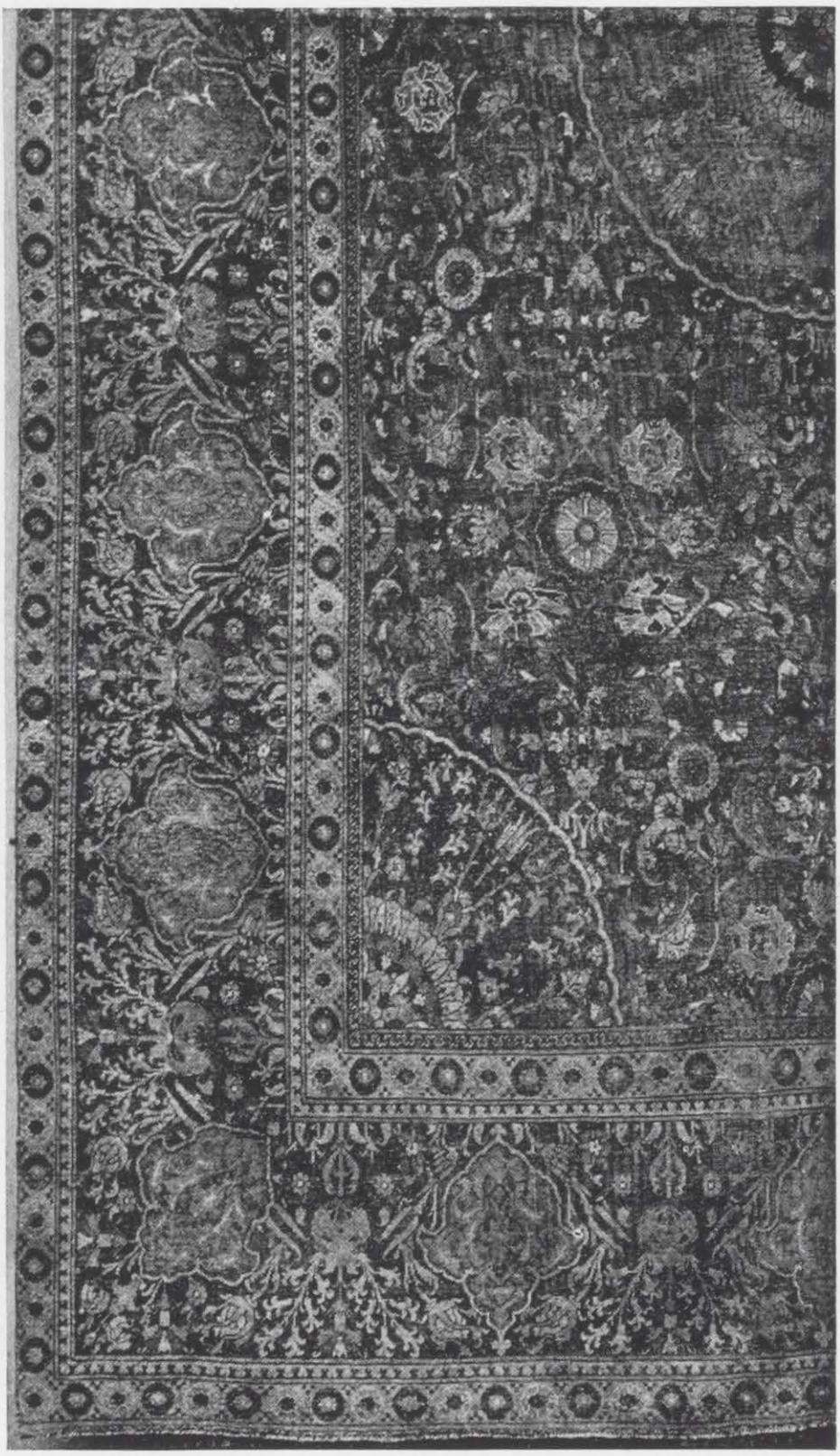


Fig. 161. Rug, Turkish, XVI Century
(Detail)

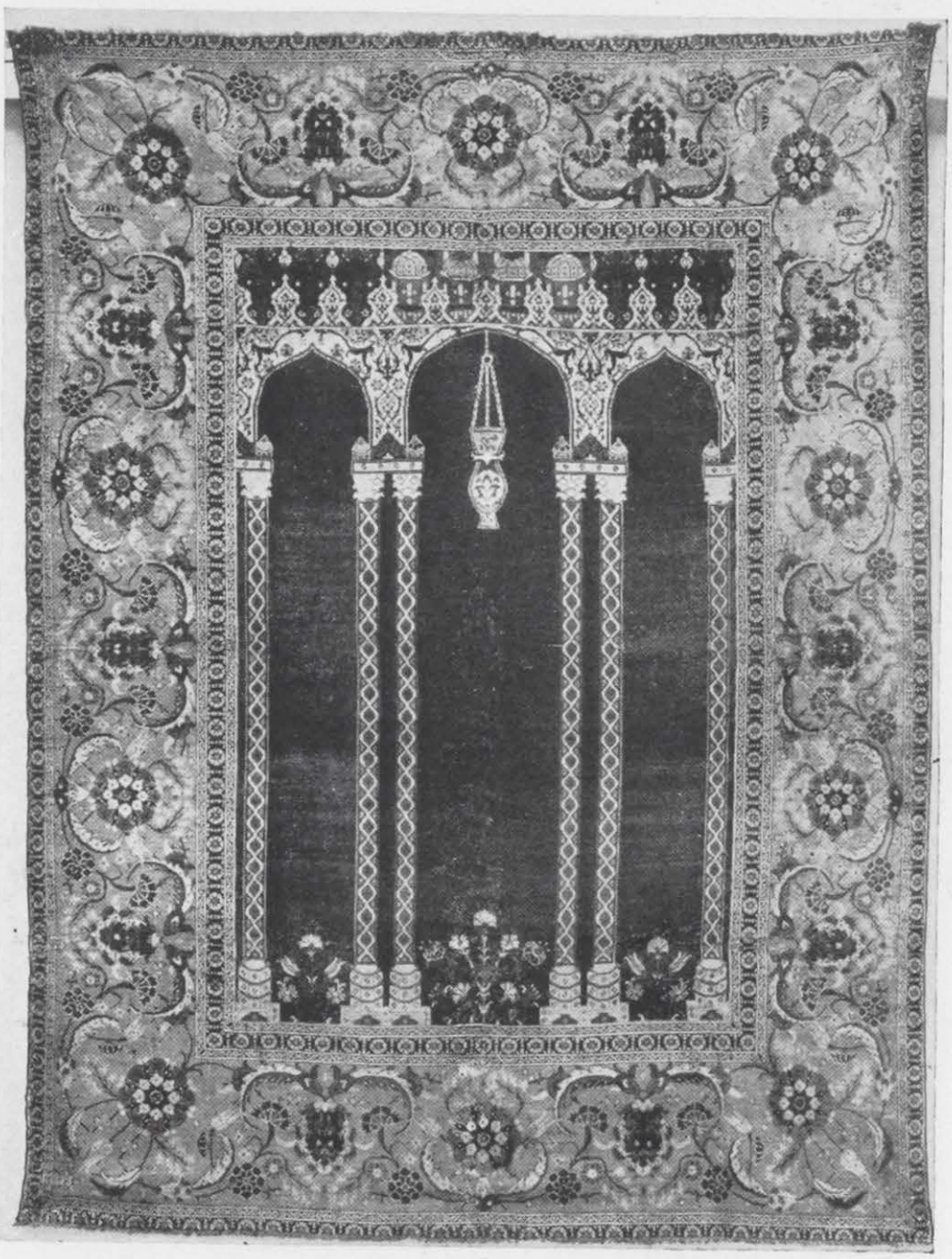


Fig. 162. Prayer Rug. Turkish, about 1600

Fig. 163. Rug, Turkish, Ushak, XVI Century

with the Girdlers' rug, or somewhat earlier.

A native style is more evident in the rug illustrated in figure 160, which may be assigned to the period of Shah Jahan. The design was inspired by a Herat rug, but has been essentially modified by the Indian weaver. The main field shows a balanced arrangement of small medallions connected by stems, bearing large leaves, palmettes, lilies, and other flowers in beautiful colors on a claret red ground. The border is purely Indian, with its naturalistic flowering plants on a blue-green ground. The fine woolen pile of this rug has an almost silken lustre. The color scheme, more Indian than Persian, is enriched by many delicate nuances.

Purely Indian also, in design and color scheme, are some of the rugs in the palace of the Maharajah at Jaipur, published by Hendley. These rugs are decorated with realistic plants in rows or in a trellis framework. They date from about the middle of the seventeenth century, and are believed to have come from the old palace at Amber. Three of these Jaipur rugs, made for the palace of the Mirza Rajah at Amber (Jai Singh), which was built about 1630, are now in New York in a private collection.

A popular variety in the trellis framework design of the Shah Jahan period is represented by the fragment of a woolen rug in the Altman Collection. The trellis is composed of numerous delicate scrolls inclosing palmettes and floral scrolls on a dark claret ground. In technical perfection the Indian weavers of the time of Shah Jahan surpassed even their Persian masters. The rug mentioned has 702 knots to the square inch; another fragment in the Altman Collection has 1258; and a fragment of a silk rug in the same collection has the incredible number of 2552.

Fig. 164. Rug, So-called Damascus, XVI Century
(Detail)

7. *Turkish Rugs from the XVI to the XVIII Century*

We have already seen that rug knotting was practised by the Seljuk Turks of Asia Minor as early as the thirteenth and fourteenth centuries. The angular rendering of the design in these early rugs continued to characterize many later rugs of this region. Others show the influence of Persian art, owing to the fact that Persian artists settled in Asia Minor in the beginning of the sixteenth century, or earlier.

Since most of the Turkish rugs in the Metropolitan Museum are in the collection presented by James F. Ballard and have been published in a separate Museum handbook,[3] only a few of the more important specimens are here illustrated.

A. Turkish Rugs with Floral Patterns

A notable group of Turkish rugs is closely related through its characteristic floral ornament to the sixteenth- and seventeenth-century pottery of Asia Minor. These rugs, which are attributed to the court manufactory in Constantinople, are sometimes very finely woven. The patterns are composed of arabesques, floral scrolls with curving leaves and conventional palmettes, cloud bands, and naturalistic Turkish flowers such as hyacinths, tulips, and carnations. Like Persian rugs they have a central medallion and corner sections filled with similar floral designs (fig. 161). The ground of the main field is usually of crimson with a pattern in shades of olive green, yellow, and blue outlined in white. The best rugs of this class may be assigned to the sixteenth century; although the type continued to be made in the seventeenth, the later rugs are inferior in quality.

[3] Joseph Breck and Frances Morris, *The James F. Ballard Collection of Oriental Rugs.*

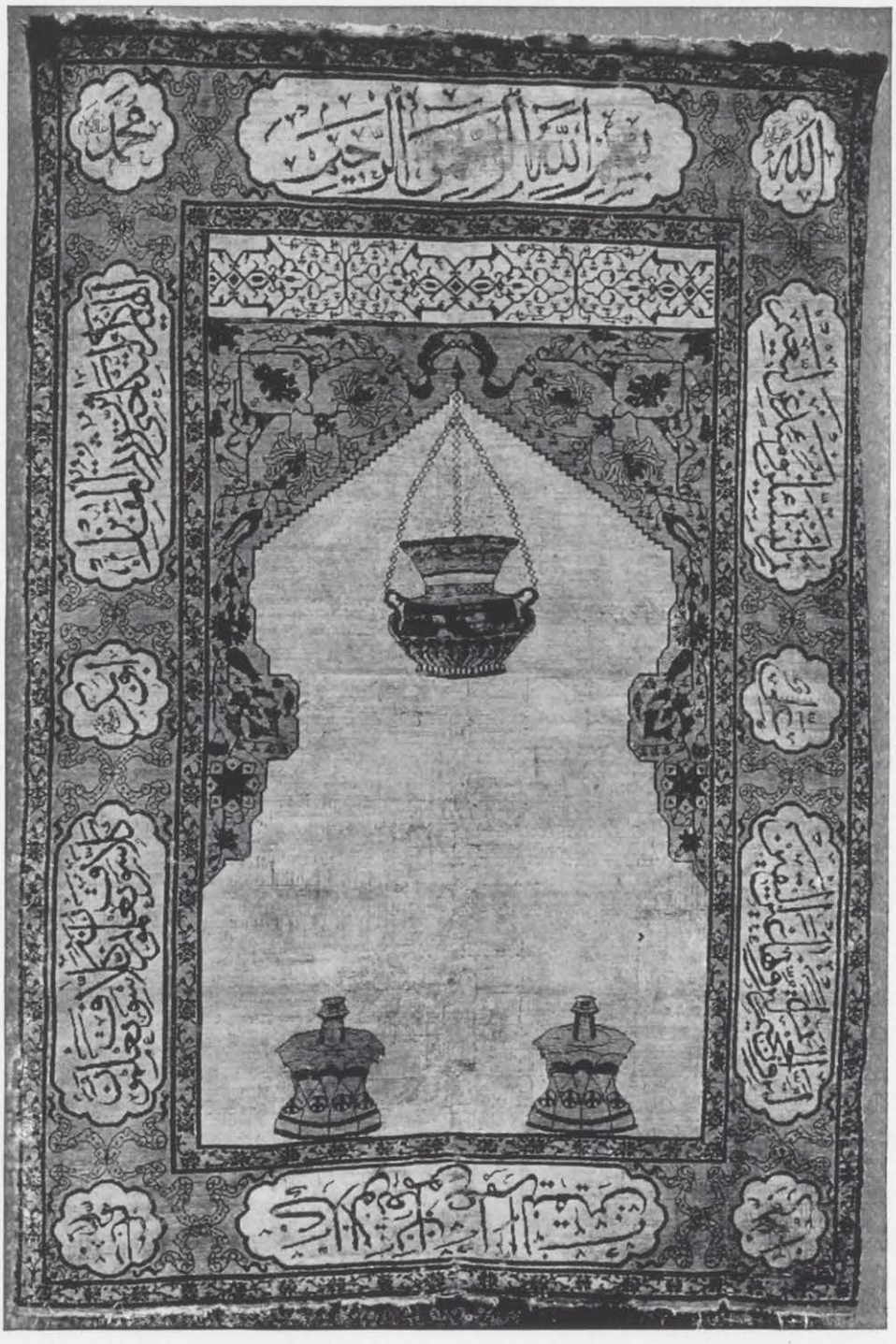


Fig. 165. Prayer Rug. Turkish, XVI-XVII Century

To the same group also belong a number of prayer rugs, one very fine example (fig. 162) of which is in the Ballard Collection and another in the Musée des Arts Décoratifs in Paris. The peculiar color scheme and the fine texture common to both rugs indicate an early period, possibly the end of the sixteenth century.

B. So-called Damascus Rugs

Characteristic of the so-called Damascus rugs (fig. 164) is their geometrical design in tile or mosaic effect, combined with stylized linear arabesques, floral scrolls, trees, and candelabra motives. The ground color is usually a cherry red, upon which the pattern is developed in blue, yellow, and yellow-green.

The place of manufacture of these rugs, which have been known in Europe since the end of the fifteenth century, is uncertain, but Morocco, Damascus, and Asia Minor have been suggested as possibilities. Sarre has attributed them to Egyptian manufactories at Cairo, because of many analogies with Egyptian ornament. In support of this view it may be noted that Arabic literary sources of the sixteenth and seventeenth centuries mention "Egyptian" rugs.

C. Ushak Rugs and Other Varieties from Asia Minor

A well-known type of Turkish medallion rug (fig. 163) is assigned to Ushak in Anatolia. These rugs are usually of large size and rather coarse in weave. The decoration, derived from Persian rug patterns, consists of several large medallions or stars and their sections. They are filled with floral scrolls and arabesques, rendered angularly in blue and yellow on red, or in yellow and red on blue. Rugs of this type were imported into Europe probably by the Venetians. They appear frequently in sixteenth- and seventeenth-century European paintings. An Ushak in the collection of the Duke of Buccleuch is dated 1584. There are also a number of prayer rugs (fig. 165) with

Fig. 166. Prayer Rug. Turkish, Ghiordes
XVII-XVIII Century

conventional floral patterns and cloud bands that may be associated with the Ushaks. Another related group of sixteenth-century rugs shows an all-over arabesque design in yellow on a red background. The so-called bird rugs are patterned with arabesques and floral scrolls on a white background; one motive composed of two arabesque palmettes suggests a bird, but the similarity seems to have been entirely unintentional.

A class of rugs, dating from the middle of the fifteenth to the middle of the sixteenth century, is distinguished by purely geometric patterns, usually consisting of complicated star and cross devices, or squares, outlined with interlacing bands; the border designs are often composed of simulated Kufic lettering. In another variety, a few large stars fill the field, and the colors are more vivid. As rugs of this type appear in the paintings of Hans Holbein and his contemporaries, they are sometimes called Holbein rugs.

D. Ghiordes Rugs

The largest and most interesting group among the prayer rugs of Asia Minor are the Ghiordes prayer rugs, of which the Ballard Collection includes eighteen specimens. The distinctive feature of these prayer rugs is the niche, or mihrab, which indicates in the mosque the direction of Mecca, toward which the Mohammedan faces at the time of prayer. The arch, which takes various shapes, is generally supported by two columns or pilasters. Sometimes a mosque lamp, which may be transformed into an ornamental device, is shown suspended from the apex of the arch. Most Ghiordes rugs are not earlier than the eighteenth century, but a few may be assigned to the seventeenth century. Dating probably from the end of the seventeenth century is the Ghiordes rug shown in figure 166. One of the Ghiordes rugs in our collection is dated A. H. 1210 (1795/96).

Fig. 167. Prayer Rug. Turkish, Ladik, Dated 1795/96

E. Kula Rugs

The Kula prayer rugs are similar to the Ghiordes in general type, but the introduction of ornament in the field of the niche is more common in Kula than in Ghiordes rugs, the latter showing a preference for a solid color effect in the field. The Kula niche differs in shape from the Ghiordes, and the border is usually composed of more stripes. The Ghiordes, as a general rule, has a cross panel above and below the field; the Kula, in the upper panel only. The best Kula rugs date from the eighteenth century.

F. Ladik Rugs

A familiar type of rug from Asia Minor bears the name Ladik. Characteristic features of these rugs are the lily stalks and arrow heads, or "Vandykes," seen below the niches. The color scheme is yellow, green, blue, and red. Most Ladiks are of the eighteenth century; the one in figure 167 is dated A. H. 1210 (1795/96).

G. Bergama Rugs

These rugs, which are assigned to the district of Bergama, are sometimes called Transylvanian or Siebenbürgen rugs, as many were found in Hungary and Transylvania. They are vigorous in color, and more nearly square in shape than most rugs from Asia Minor. The compartment borders are characteristic (fig. 168).

8. *Caucasian Rugs*

Caucasian rugs come from the country between the Black Sea and the Caspian traversed obliquely by the Caucasus mountains. Although rug weaving was undoubtedly practised for many centuries in this region, the vast majority of Caucasian rugs still in existence are not earlier than the nineteenth cen-

Fig. 168. Prayer Rug. Turkish, Bergama, XVII Century

tury. Despite the diversity of floral, geometrical, and animal motives in rugs of this group, they are alike in a general tendency toward geometrical rendering. Most Caucasian rugs are made with a knotted pile, but two varieties of smooth-faced rugs, the kilim and Soumak, also occur.[4]

Caucasian rugs may be conveniently divided into northern and southern groups. In the north, the province of Daghestan, of which Derbend is the principal town and chief distributing center, has produced well-made rugs with characteristic patterns of lattice diapers and small repeating devices. Some Daghestan rugs are called Kabistans; Kouba gives its name to another group. The northern nomad rugs are called Lesghians.

One of the principal districts in the southern group is Shirvan. The rugs woven here are somewhat coarser than the Daghestans and have patterns rather less refined. A type of rug ornamented with rows of large cone devices is assigned to Baku. Such a rug in our Museum bears the date A. H. 1223 (1808/09). The Kazak (Cossack), or nomad, rugs of the south with long lustrous pile, bright colors, and bold geometrical designs comprise a striking group of Caucasian rugs. The Tcherkess are a variety of Kazaks, distinguished by their tawny color. Another type, recalling the Kazak, is given the name of Gengha, a town in the province of Karabagh. Other rugs, vaguely reminiscent of Persian models, are produced in this region; the better ones are called after the town of Shusha.

9. *Turkoman Rugs of Central Asia*

The wandering Turkoman tribes of Central Asia have long been skilled weavers of rugs, which serve a variety of pur-

[4] In the kilim weave, the weft threads forming the design are passed alternately over and under the warp threads and pressed down to give a compact texture. The Soumak is a more complicated process in which the weft threads are alternately passed forward under four warps and then backward over two warps.

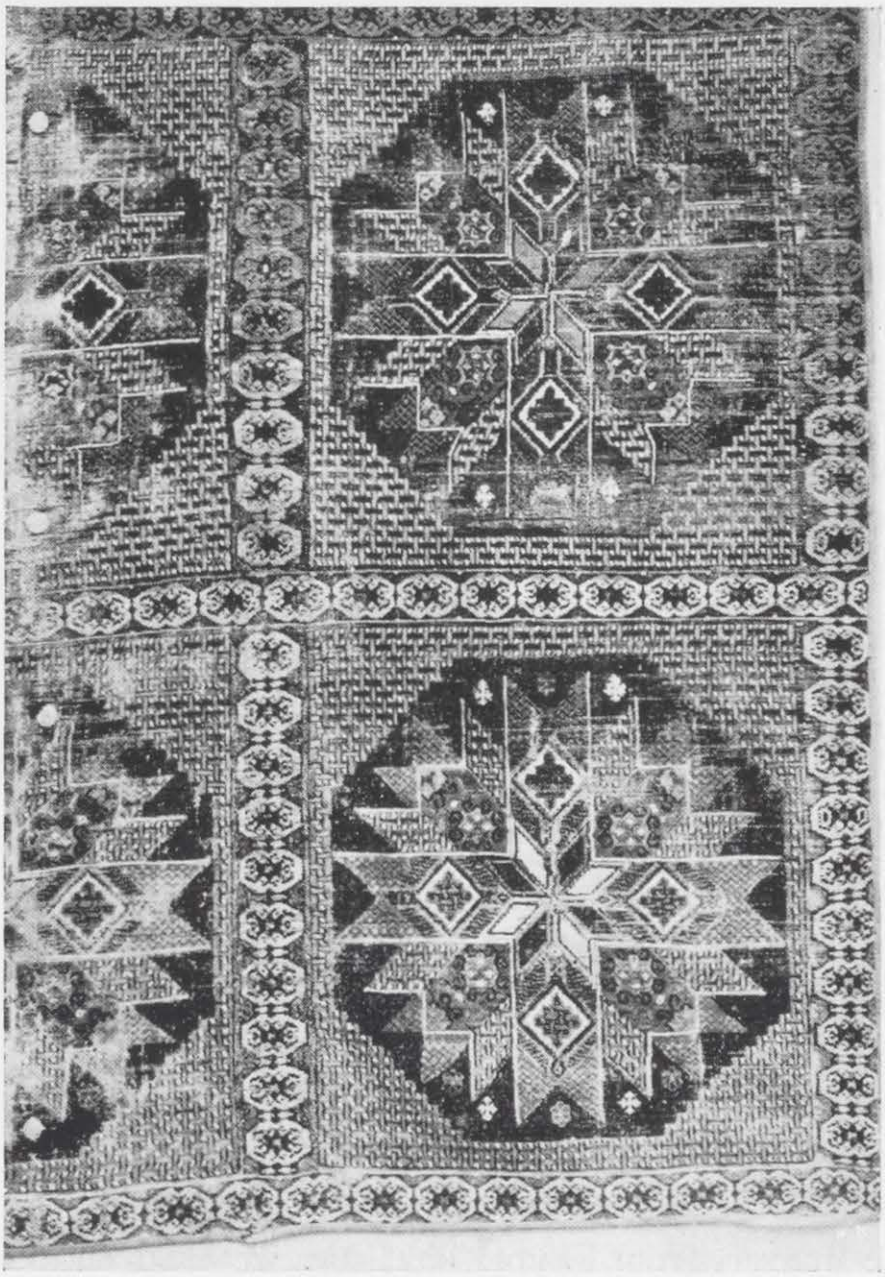


Fig. 169. Rug, Hispano-Moresque, XV Century
(Detail)

poses in the nomadic life of these tent-dwelling people. Turkoman rugs thus include not only floor rugs but also saddle bags, camel collars, tent bags, portières, and borders for the tent entrance. Most Turkoman rugs are comparatively modern productions. The principal district in which these rugs are produced corresponds roughly with the province of Transcaspia in southwestern Turkestan. It extends eastward from the Caspian to Bokhara, northward to the sea of Oral, and southward to the boundary of Persia. The rugs woven by the Turkoman nomads of Afghanistan and Baluchistan have much the same general character as the Transcaspian, but are inferior in color, design, and technique. Chinese influence predominates in the rugs of eastern Turkestan. The Turkoman rugs of the Transcaspian region are often wrongly described as Bokharas.

The predominating color in Transcaspian rugs is a deep, rich red of a brownish or purplish tinge. Patterns vary somewhat with the different tribes, but are usually severely geometrical in character. Perhaps the most familiar of all Turkoman decorative forms is the flattened octagonal compartment. This motive forms a pattern of frequent occurrence in the Tekke group of Turkoman rugs.

10. *Spanish Rugs of the Mohammedan Period*

The Arab conquest of Spain brought this country into close relations with the East. It may therefore be safely assumed that the craft of rug knotting was practised at an early date in Spain, not only by Mohammedans, but also, perhaps, by Coptic weavers from Egypt. That rugs were woven in Spain in the twelfth and thirteenth centuries we know from literary sources, but no existing Hispano-Moresque rugs can be assigned to an earlier period than the fourteenth century. To this period may belong a so-called tree rug in the Kaiser Friedrich Museum in Berlin; the design consists of a symmet-

rical composition with motives resembling shrines in the field and Kufic letters in the border.

Several fifteenth-century rugs bear coats of arms that may be identified and precisely dated. The arms are displayed upon a field ornamented with a repeating pattern of octagons inclosing geometrical motives, human figures, and birds, angular in drawing and woven in many vivid colors. The borders are divided into several bands of Kufic inscriptions, geometrical patterns, and grotesque figures. A well-known heraldic rug of the first half of the fifteenth century with the arms of the Henriquez family is in the Williams Collection.

To the same period as the heraldic rugs may be assigned a rare type of rug with a geometrical pattern of stars within octagons. An example in our Museum is reproduced in figure 169. The design and color scheme are characteristic of the Moorish style of decoration. An interesting rug in the Ballard Collection exemplifies another variety of Hispano-Moresque rug of the fifteenth century; conventionalized bird and floral motives are repeated in an all-over pattern.

Although western motives predominated in the sixteenth century, we occasionally find rugs with Oriental patterns copied from Turkish rugs. Such a rug is in the Ballard Collection. The main field has an arabesque pattern familiar to us from the Ushak rugs of Asia Minor, while the border shows Renaissance scroll motives. The colors are blue in two shades and white on yellow, a combination frequently seen in sixteenth-century Spanish rugs.

CHRONOLOGICAL TABLE OF MOHAMMEDAN DYNASTIES[1]

THE CALIPHATE

A. D.

632- 661 The Orthodox Caliphs

- 632- 634 Abu Bakr
  - The capital at Medina
- 634- 644 Omar
  - Conquest of Syria, Mesopotamia, Persia, and Egypt
  - Foundation of Basra in 636
  - Foundation of Kufa in 638
- 644- 656 Othman
- 656- 661 Ali
  - The capital at Kufa

661- 750 Omayyad caliphs

- 661- 680 Moawiya I
  - The capital at Damascus
- 680- 683 Yazid I

750-1258 Abbasid caliphs

- 753- 775 Mansur
  - Beginning of the decline of the caliphate in 755
  - Foundation of Bagdad, the new capital of the Abbasid caliphs, in 762
- 786- 809 Harun ar-Rashid
  - Foundation of Rakka, a second residence, in 795
- 833- 841 Mutasim
  - The Abbasid capital removed from Bagdad to Samarra, a newly founded city, in 836

[1] For a complete list of Mohammedan dynasties see: Stanley Lane-Poole, *The Mohammadan Dynasties*. London, 1893. E. de Zambaur, *Manuel de généalogie et de chronologie pour l'histoire de l'Islam*. The Hague, 1929.

841- 847 Wathik

847- 861 Mutawakkil
In 858 the residence transferred for a short time to Damascus

870- 892 Mutamid
The residence transferred to Bagdad again in 892

1242-1258 Mustasim
Conquest of Bagdad by Hulagu, the Il-khan of Persia, in 1258, and the end of the eastern caliphate of the Abbasids

SPAIN

710- 712 Arab conquest of Spain

713- 756 Governors appointed by the Omayyad caliphs

756-1031 Omayyads of Cordova

912- 961 Abd ar-Rahman III
The title of caliph adopted by this ruler in 929

1010-1091 Minor dynasties of Malaga, Algeciras, Seville, Granada, Cordova, Toledo, Valencia, and Saragossa

1056-1148 Almoravides (Berber dynasty, rulers of Morocco and part of Algeria)

1130-1269 Almohades of North Africa
The temporary residence at Seville

1232-1492 Nasrids of Jaen and Granada
Granada captured by Ferdinand and Isabella of Castile in 1492

SICILY

827- 878 Conquest of Sicily by the Aghlabids of Tunis

909-1071 Fatimids of Syria and Egypt
Conquest of Sicily by the Normans in 1071

NORTH AFRICA

669- 800 Governors appointed by the caliphs

789- 985 Idrisids of Morocco

800- 909 Aghlabids of Tunis

909- 972 Fatimids
The capital at Mahdiya

972-1148 Zayrids of Tunis
The capital at Kairwan

1007-1152 Hammadids of Algeria
The capital at Kalat Beni Hammad

1056-1147 Almoravides of Morocco and part of Algeria and Spain

1130-1269 Almohades

1228-1534 Hafsids of Tunis

EGYPT

641 Arab conquest of Egypt

641- 868 Governors appointed by the Omayyad and Abbasid caliphs

868- 904 Tulunids (a dynasty of Turkish origin)
The capital at Katai, near Fustat

935- 969 Ikhshidids

969-1171 Fatimids (a Shiah dynasty, rulers in North Africa since 909)
Foundation of a new residence and capital, Kahira, or Cairo, in 969

996-1020 Hakim

1035-1094 Mustansir

1168-1250 Ayyubids

1169-1193 Nasir Salah ad-Din (Saladin)

1252-1517 Mamluk sultans (slaves of Turko-Circassian origin)

1250-1390 Bahri Mamluks
Defeat of the Mongols at Ain Talut in 1260

1278-1290 Mansur Saif ad-Din Kalaun

1293-1340 Nasir Nasir ad-Din Muhammad (reigned three times)

1382-1517 Burji Mamluks

1517-1805 Ottoman sultans of Turkey

SYRIA

635- 638 Arab conquest of Syria

661- 750 Omayyads
The capital at Damascus

750- 877 Abbasids

877-1076 Tulunids and Fatimids of Egypt
1076-1176 Seljuks and Atabegs (Seljuk officers)
1176-1271 Ayyubids
1271-1517 Mamluk sultans of Egypt
Wars with Crusaders and Mongols
1517-1918 Ottoman sultans of Turkey

MESOPOTAMIA

633 Arab conquest of Irak
637 Arab conquest of Madain (Seleucia-Ctesiphon)
661- 750 Omayyads
750- 945 Abbasids
945-1055 Minor Arab and Kurdish dynasties
1055-1256 Seljuks and Atabegs (Seljuk officers)
Capture of Bagdad by Tughril Beg in 1055
1127-1262 Zangids (Atabegs of Mesopotamia and Syria)
1101-1231 Ortukids (Atabegs of Diarbakr, or Amida)
Branches in Kayfa and Maridin
1256-1336 Il-khans of Persia (a Mongol dynasty founded by Hulagu)
1256-1265 Hulagu
Destruction of Bagdad, in Irak, and overthrow of the caliphate in 1258
The winter residence at Bagdad
1336-1502 Jalairid and Turkoman dynasties of Azerbaijan
1502-1638 Safavids of Persia
1638-1918 Ottoman sultans of Turkey

ARABIA FELIX (YEMEN)

632- 819 Governors appointed by the caliphs
819-1018 Ziyadids of Zabid and Yemen
1021-1160 Najahids of Zabid
1037-1098 Salaihids of Sana
1173-1228 Ayyubids of Egypt and Syria
1229-1454 Rasulids
1446-1517 Tahirids

CHRONOLOGICAL TABLE

PERSIA AND TRANSOXIANA

638- 640 Arab conquest of Khuzistan and Tustar

642 Overthrow of the Sasanid dynasty at the battle of Nehavend

661 Capture of Herat, in Khorasan

661- 820 Governors appointed by the Omayyad and Abbasid caliphs

820-1055 Persian dynasties

- 819-1004 Samanids in Transoxiana and Persia
- 820- 874 Tahirids in Khorasan
- 825- 898 Dulafids in Kurdistan
- 864-1032 Alids in Tabaristan
- 868- 903 Saffarids
- 879- 930 Sajids in Azerbaijan
- 932-1055 Buwayhids in southern Persia and Irak

1037-1194 Seljuks (the descendants and followers of Seljuk, a Turkish chieftain)

- 1037-1157 Great Seljuks
  The capital at Ispahan
  - 1037-1063 Tughril Beg
    Proclaimed king after the capture of Nishapur
  - 1041-1187 Seljuks of Kerman

1077-1231 Shahs of Khwarazm (Khiva)

1136-1225 Ildeghizids (Atabegs of Azerbaijan, or Ardebil)

1148-1287 Salgharids (Atabegs of Fars)

1148-1339 Hazaraspids (Atabegs of Luristan)

1206-1251 Great Khans

- 1206-1251 Chinghiz Khan (a chieftain of clans from eastern Central Asia)

1256-1353 Il-khans of Persia
The summer residence at Tabriz

- 1256-1265 Hulagu
- 1281-1284 Ahmad Khan
  Islam embraced by this ruler in 1282

1313-1393 Muzaffarids of Fars, Kerman, and Kurdistan

1369-1500 Timurids

1369-1404 Timur, or Tamerlane (a descendant of Chinghiz Khan)
The capital at Samarkand
Campaigns in Persia, 1380-1387

1404-1447 Shah Rukh
The capital at Herat

1378-1469 Kara-Kuyunli of Azerbaijan and Armenia (Turkomans of the Black Sheep)
The capital at Tabriz

1378-1502 Ak-Kuyunli of Azerbaijan (Turkomans of the White Sheep)

1428-1599 Shaibanids of Transoxiana (Uzbeg sultans)
Sub-dynasties in Samarkand and Bokhara

1502-1736 Safavids

1502-1524 Ismail I
The capital at Tabriz
Capture of Herat in 1510
Battle of Chaldiran against the Turks in 1514

1524-1576 Tahmasp I
The residence transferred to Kazwin in 1549

1587-1628 Abbas I
The capital at Ispahan

ASIA MINOR AND TURKEY

1077-1327 Seljuks of Rum
The capital at Konia

1300-1924 Ottoman sultans

1299-1326 Othman
Europe invaded by the Turks in 1308
Surrender of Brusa to the Ottoman Turks in 1326

1326-1360 Orkhan
The capital at Brusa

1360-1389 Murad I
The capital transferred to Adrianople in 1365

1389-1402 Bayazid

1402-1421 Muhammad I

1451-1481 Muhammad II
Capture of Constantinople in 1453; Constantinople thenceforth the capital

1512-1520 Selim I

1520-1566 Sulaiman I

1623-1640 Murad IV

INDIA AND AFGHANISTAN

711 Arab conquest of Sind

962-1186 Ghaznawids
The capital at Ghazna

962- 963 Alptigin (founder of the dynasty; formerly a Turkish slave at the Samanid court)

977- 997 Sabaktigin
Defeat of the Rajputs

998-1030 Mahmud
Indian wars
Conquest of Gujarat in 1024

1100-1215 Ghorids of Afghanistan and Hindustan

1206-1556 Sultans of Delhi

1391-1572 Kings of Gujarat

1526-1857 Mughal emperors

1526-1530 Babur (a descendant of Timur)
Born in Ferghana in 1482
Capture of Kabul in 1504
Occupation of Delhi and Agra in 1526
The residence at Agra

1530-1556 Humayun
Refugee in Persia, 1540-1555

1556-1605 Akbar
The residence at Fathpur-Sikri, 1569-1584; afterwards at Lahore

1605-1627 Jahangir
The residence at Lahore

1627-1658 Shah Jahan

1658-1707 Aurangzib

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